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Northern Oil and Gas Action Program

NOGAP
BIBLIOGRAPHY

Volume 4
February 1992

NOGAP SECRETARIAT

CONSTITUTIONAL DEVELOPMENT AND STRATEGIC PLANNING BRANCH

INDIAN AND NORTHERN AFFAIRS CANADA

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NOGAP
BIBLIOGRAPHY

Volume 4
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SOMMAIRE

La présente bibliographie contient des renvois et des sommaires au sujet des rapports, publiées ou non, produits sous l'égide du Programme d'initiatives pétrolières et gazières dans le Nord (PIPGN). Le PIPGN est un programme de recherche et de planification d'une durée de huit ans qui vise à préparer le gouvernement fédéral et les administrations territoriales à participer à des grands projets de mise en valeur des hydrocarbures qui gisent au nord du 60° parallèle.

Le volume 4 de la bibliographie du PIPGN préparé par l'Arctic Institute of North America's Arctic Science and Technology Information (ASTIS) renferme 145 citations. Pour faciliter la consultation, les citations sont groupées en quatre grandes catégories idéologiques (sujets) comme le montre la table des matières. À l'intérieur de chaque catégorie, les citations apparaissent en ordre ascendant de numéro de dossier de l'ASTIS. Les citations qui s'appliquent à plus d'une grande catégorie apparaissent sous la catégorie la plus pertinente et un renvoi est fait à la fin des autres catégories sous la rubrique Voir aussi.

Les index renvoient à la section principale de la bibliographie à l'aide d'une combinaison grande catégorie par sujet et numéro ASTIS. Les index géographique et idéologique (sujet) puisent dans les thésaurus géographique et idéologique de l'ASTIS. Tous les auteurs, tant les particuliers que les entreprises, (organismes parrains, y compris) sont répertoriés dans l'index des auteurs. Les articles de tête (comme le, la, un, etc.) n'apparaissent pas dans l'index des titres. L'index des séries répertorie tous les grands ouvrages dont un rapport fait partie, y compris les projets du PIPGN présentés par numéro de projet.

Les personnes désireuses d'obtenir les rapports cités dans la bibliographie devraient d'abord s'adresser à leur bibliothèque de référence locale ou à l'éditeur du document. Si cette démarche demeure sans résultat, le rapport peut toujours être obtenu par prêt entre bibliothèques auprès de l'un des endroits dont le code apparaît à la dernière ligne qui précède le résumé. L'explication des codes se trouve dans la publication Sigles des bibliothèques canadiennes que vous pouvez consulter au service des prêts interbibliothèques de toute bibliothèque canadienne.

92-03468/

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INTRODUCTION

PURPOSE

This bibliography contains citations and abstracts for published and unpublished reports completed under the Northern Oil and Gas Action Program (NOGAP). These items have been funded wholly or partly by NOGAP.

One of the NOGAP's operating objectives is to make its products widely known and available. This volume, the fourth in a series, is issued in support of this objective. A cumulative bibliography (1–4) is available in computerized format "Folio Views". A copy can be obtained from the NOGAP Secretiat on request, by phoning 997–8293 or writing the NOGAP Secretariat, 10 Wellington Street, room 948, Les Terrasses de la Chaudière, Hull, Quebec K1A 0H4.

THE PROGRAM

NOGAP is an eight–year research and planning program intended to advance the state of federal and territorial government preparedness for major hydrocarbon development north of 60°.

Government preparedness for major hydrocarbon production refers generally to acquiring the knowledge and analytical capability to make appropriate decisions concerning major northern development proposals. Preparedness requires the ability to evaluate environmental impacts and mitigate adverse ones; to develop guidelines and techniques to minimize hazards; to plan for additional public services and infrastructure; and, to implement means of enhancing northern opportunities and benefits from hydrocarbon development.

NOGAP funds are used to accelerate work on current projects or to undertake new activities which existing budgets cannot accommodate. Projects are proposed by NOGAP participants to support their responsibilities in connection with northern hydrocarbon development. They are undertaken within the context of generic development scenarios which have been adopted for the program.

SCOPE OF THE BIBLIOGRAPHY

The bibliography is multi–disciplinary by virtue of the organizations participating in NOGAP – five federal departments and both territorial governments:

FEDERAL GOVERNMENT

1) Indian and Northern Affairs Canada
2) Fisheries and Oceans
3) Environment Canada
4) Energy, Mines and Resources Canada
5) Canadian Museum of Civilization – Archaeological Survey of Canada
6) Government of the Yukon
7) Government of the Northwest Territories

The bibliography contains all the reports produced completely or partially with NOGAP funding and submitted to the NOGAP Secretariat between August 1988 and August 1991. Some of these reports have been published, primarily in well-known departmental series. A majority of the reports have not been formally published, although some may later be published in existing series. The reports are final, unless otherwise noted. A cumulative (hard copy) volume of all bibliographies is currently in preparation and expected to be available in the early 1992. In the interim this is available in computerized format as noted previously.

ORGANIZATION OF THE BIBLIOGRAPHY

Volume 4 of the NOGAP Bibliography was prepared by the Arctic Institute of North America's Arctic Science and Technology Information (ASTIS) and contains 145 citations. Citations are grouped into broad subject categories as shown in the Table of Contents to allow easy browsing. Within each category citations are listed in ascending order by ASTIS record number. Citations that apply to more than one broad subject category are listed in the most applicable category and are cross-referenced in the See Also list at the end of other pertinent categories.

The indexes refer back to the main section of the bibliography using a combination of broad subject category and ASTIS number. The subject and Geographic Indexes use terms from the ASTIS subject and geographic thesauri. All personal and corporate authors, including sponsoring organizations, are listed in the Author Index. Leading articles (A, The, etc.) are removed in the Title Index. The Serial Index lists all larger works of which a report is part, including NOGAP projects sorted by project number.

Those wishing to obtain reports cited in the bibliography should first contact their local research libraries or the publisher of the document. If this approach is unsuccessful the report may be obtained on interlibrary loan from one of the locations indicated by codes on the last line preceding the abstract. The codes are explained in the publication *Symbols of Canadian Libraries*, which is available in the interlibrary loan department of any Canadian Library.

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A – GEOGRAPHY, GEOMORPHOLOGY, AND CARTOGRAPHY

A-308714

Coastal erosion and shoreface evolution in the southern Canadian Beaufort Sea / Hequette, A. Canada. Geological Survey.

Dartmouth, N.S. : Geological Survey of Canada, 1988.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

A one page preprint with a handwritten note saying: "Canadian Association of Geographers, 1988".

Document not seen by ASTIS. Citation from NOGAP.

OOG

With the exception of the Mackenzie Delta, the coastline of the southern Canadian Beaufort Sea consists of low to moderately elevated unconsolidated cliffs. Although the Beaufort Sea is ice-free during only three months a year and wave energy is restricted by pack ice offshore, the coast is undergoing regional retreat with very high erosion rates (>10 m/a in some locations). When ground ice is present in the surficial sediments, it is an important factor controlling cliff retreat as it leads to slumping (retrogressive thaw failure). Regression analyses of erosion rates with ground ice content, sediment texture, cliff height and wave energy revealed medium to poor correlation. This shows that the recessive evolution of the shoreline can not be explained solely in terms of wave-induced or land based processes (thaw settlement, retrogressive failure, mudflows ...), so other geomorphic agents must contribute to the coastal retreat. The comparison of nearshore echo-sounding records with earlier bathymetry from the 1960's showed substantial changes in the shoreface profile, it is proposed that the evolution of the submarine slope has a significant effect on the recession of the coastline. Degradation of subseabed permafrost and sea ice processes on the seafloor are suggested to be major factors influencing shoreface profile development. (Au)

See also: B-308633, B-308668, B-308676, B-308692, B-308706, B-308722, B-308730, B-308781, B-308790, B-308811, B-308820, C-308528, C-308544, C-308560, D-308420, D-308595, D-308609, D-309494, D-309516, G-308579, G-308587, G-308625, I-204188, Q-308536, U-306495, U-308404, U-308919, U-309010, U-309036, U-309176, U-309290, U-309320, U-309370.

B – GEOLOGY, MINERALOGY, GEOCHEMISTRY, AND PALÆONTOLOGY

B-308412

Addendum report part C on western Beaufort region concrete aggregate study / Klohn Leonoff Consulting Engineers. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Calgary, Alta. : Klohn Leonoff Consulting Engineers, 1989.

39, 11 leaves : ill. ; 30 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

Partial contents: Concrete aggregate test, Beaufort Sea : Properties of concrete prisms subjected to cyclical freezing and thawing and petrographic characteristics / J.E. Gillott.

Appendix.

References.

OORD, NWYIN, ACU

This report presents and discusses the results of a long-term laboratory study of potential sources of concrete aggregates in the Western Beaufort Region. The main goal of the study was an assessment of the suitability of the sources for production of concrete aggregates on the basis of their performance under standard alkali-aggregate reactivity testing and under simulated Arctic marine test conditions. In this report, work completed as earlier phases of the study is reviewed and summarized and the cumulative results of the long-term alkali-aggregate testing over a total 24 months duration are presented and discussed. The results of thin section petrographic examinations and scanning electron microscopy are also presented and compared with the results of rapid freeze-thaw tests and the alkali-aggregate reactivity tests. Four of the six sites examined may be suitable, but further field testing would be required to determine quantities available and material homogeneity. (NOGAP)

B-308439

DIAND "compilation and cataloguing of Beaufort bathymetric and high resolution shallow geophysical survey data" 1988 / McElhanney Surveying & Engineering Limited. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Calgary, Alta. : McElhanney Geosurveys Ltd., 1988.

30 leaves ; 29 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

OORD, NWYIN

This report describes the compilation and cataloguing of bathymetric and marine high-resolution geophysical data for the Beaufort Sea. Reports and trackplots of the marine surveys obtained from the major Beaufort petroleum operators and government were reviewed with regard to their potential usefulness in developing an inventory of offshore granular resources. Information on each of the previous surveys was compiled in a database consisting of 50 separate "fields" and trackplots were assembled for digitizing. Listings of the catalogued surveys, by sponsoring company or agency, location and type of survey are included. The report concludes that, although a substantial body of information collected in the early years of Beaufort exploration could not be located during the study, the majority of Beaufort Sea surveys have been examined and catalogued, and that information collected since 1980 will be of greater value than earlier data. (NOGAP)

B-308447

Digitization of Beaufort granular resource information : final report / Earth & Ocean Research Ltd. Peters, J. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

[S.l.] : Earth & Ocean Research Ltd., 1988.

[63] leaves : ill. ; 28 cm.

(NOGAP project no. A.04 : Granular resources inventory and management program)

Partial contents: Appendix I: The Beaufort Sea granular resource database – digitized track inventory – Appendix II: The Beaufort Sea granular resource database : list of digitized track databases correlated with the McElhanney catalogue – Appendix III: the SUPER-TECH workstation.

Appendices.

References.

OORD, NWYIN

High-resolution seismic and sidescan track information from the Beaufort Sea was compiled in digital database format and converted to

the format of a geographic data management system used for selectively displaying, overlaying and plotting geophysical survey and other information. Geographic data on recent government and industry geophysical surveys which was available already in digital format was simply converted to the required format. Previous compilations of historical regional geophysical survey data from both government and industry sources and detailed site surveys from DIAND defined borrow blocks, were manually digitized. The spatial database compiled in this study includes about 1500 geophysical survey lines, totalling nearly 29,000 line-km, which was believed to represent essentially all of the then-existing geophysical data that was considered suitable for Beaufort granular materials evaluation. Recommendations for the modification of the spatial database system and the use and upgrading of the data were provided. (NOGAP)

B-308455

Beaufort Sea geotechnical database : volume I / EBA Engineering Consultants Limited. MacLeod, N.R. Canada. Supply and Services Canada [Sponsor].
[S.l.] : EBA Engineering Consultants Ltd., 1988.
[43] leaves : 1 map ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Partial contents: Appendix A: Catalogue data dictionary and selected report entries – Appendix B: Borehole log source reports.
OORD, NWYIN

This report describes the compilation of geotechnical information collected for the Beaufort Sea, primarily by the oil industry and including some 100 reports that contain logs of more than 1400 geotechnical borings, into a database of geotechnical information for use in the evaluation of offshore granular resources. General information on the location, amount and availability of existing subsurface data and its usefulness in granular materials evaluation has been catalogued in database format. Some information was excluded for proprietary reasons, however, almost 1300 borehole logs were made available to the study. Detailed subsurface data, including stratigraphic, basic engineering classification and laboratory test data from these logs has been interpreted, standardized, summarized and compiled in an offshore granular borehole database. The criteria adopted for this process are described in the report. Detailed engineering and foundation data not applicable to granular resource evaluation was not included in the database. (NOGAP)

B-308463

Beaufort Sea geotechnical and geophysical databases / EBA Engineering Consultants Limited. Olthof, R.I. Canada. Supply and Services Canada [Sponsor].
[S.l.] : EBA Engineering Consultants Ltd., 1991.
ca. 125 leaves : 1 map ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Partial contents: Appendix A: Report catalogue data dictionary – Appendix B: Report catalogue centrism B.1 Geotechnical, B.2 Geophysical and hydraulic – Appendix C: Borehole/corehole/surficial sediment log/geophysical data source reports – Appendix D: Additional references.
OORD, NWYIN, ACU

This report summarizes 1991 efforts to expand geotechnical and geophysical databases, originally compiled as separate projects (NOGAP A.4-22 and A.4-15, respectively) in 1988. These databases include catalogues of reports of geotechnical and surficial geological studies and of hydrographic and high-resolution geophysical surveys undertaken or sponsored by both government and the Beaufort Sea petroleum operators, as well as a borehole database of stratigraphic and basic soil test information. Logs of an additional 71 boreholes or coreholes and another 332 surficial sediment samples have been included in the Beaufort Sea geotechnical borehole database, which now totals more that 2700 logs. These additional data were contained in 21 reports, which were also added to the existing database of geotechnical reports. Another 14 high-resolution geophysical surveys and 4 hydrographic surveys have been compiled in the geophysical reports catalogue. (NOGAP)

B-308471

Mackenzie Valley transportation corridor geotechnical database / EBA Engineering Consultants Limited. Olthof, R.I. Canada. Supply and Services Canada [Sponsor].
Calgary, Alta. : EBA Engineering Consultants Ltd., 1991.
[125] leaves : maps ; 28 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
Partial contents: Appendix A: Report catalogue data dictionary – Appendix B: Mackenzie Valley report catalogue entries – Appendix C: Mackenzie Valley borehole and/or testpit log source reports – Appendix D: Additional references.
References.
OORD, NWYIN, ACU

This report summarizes efforts to compile a database that catalogues fieldwork, reports, maps and other information on potential sources of granular and other construction materials in the Mackenzie Valley corridor. This catalogue of information complements separate existing databases containing descriptions of potential borrow sources in both the Upper and Lower Mackenzie Valley corridor. Several federal departments, the territorial government and industry have made information available for inclusion in these databases. The present study identified more than 150 previous granular resource, terrain analysis, surficial geology, geotechnical engineering and other studies containing at least 14,000 boreholes. Due to budget and time constraints, only 74 of these studies have been included in the report catalogue database. Recommendations are provided for correlation of the studies, borrow sources and boreholes. (NOGAP)

B-308633

Late Quaternary seismo-stratigraphy of the inner shelf seaward of the Tuktoyaktuk Peninsula, Canadian Beaufort Sea / Hill Geoscience Research. Hequette, A. Hill, P.R. Canada. Geological Survey [Sponsor].
Halifax, N.S. : Hill Geoscience Research, [198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

This paper describes the seismic stratigraphy of the Quaternary sediments on the inner shelf (<20 m water depth) of the Canadian Beaufort Sea, seaward of the Tuktoyaktuk Peninsula. Two regional unconformities and three seismic sequences are defined from the high resolution seismic records. The deeper sequence (Sequence III) is characterized by large-scale crossbeds. This sequence has been correlated with the Tingmiark Sand lithostratigraphic unit, previously defined farther offshore, which is thought to be a glaciofluvial unit deposited during lower-than-present sea level conditions in the late Wisconsinan. The lower boundary of the overlying sequence (Sequence II) is an unconformity (U/C 2), interpreted as the pre-transgression land surface. Sequence II is discontinuous and consists of localized basin-fill and channel-fill units. Most of these are remnants of thermokarst lakes partially eroded during the Holocene transgression. This sequence is separated from the uppermost sequence (Sequence I) by another unconformity (U/C 1) which is the shoreface erosion surface generated by the Holocene sea level rise. Sequence I is composed of a transgressive sand sheet overlain, in deeper areas, by recent marine muds. Seaward of Hutchison Bay, a large sub-bottom depression within Sequence III is interpreted as a late Wisconsinan fluviatile channel. According to our seismic interpretation, the Tuk Phase morainal and glaciofluvial deposits existing onland on the Tuktoyaktuk Peninsula, and which were previously assigned to the Early Wisconsinan, would

be of late Wisconsinan age. (Au)

B-308641

Late Quaternary stratigraphy and sedimentation of the eastern Canadian Beaufort shelf / M.J. O'Connor & Associates Ltd. Hill, P.R. Blasco, S.M. O'Connor, M.J. Atlantic Geoscience Centre [Sponsor].
Calgary, Alta. ; M.J. O'Connor & Assoc. Ltd., [198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

Three seismic sequences separated by two unconformities were defined on high resolution seismic profiles from the eastern Canadian Beaufort Shelf. Sequence 1 which forms a surficial veneer over most of the shelf, is thicker in seabed troughs and becomes generally thinner eastward on banks. An unconformity (U/C 1) separates Sequences 1 from the underlying Sequence 2, which is most clearly identified in the seabed troughs as a progradational wedge. Sequence 2 thins at bank margins and commonly becomes indistinguishable from the top part of Sequence 3. A second unconformity (U/C 2) separates Sequence 2 and 3 in trough areas and defines deeply incised and infilled valleys which were traced across the shelf. Sequence 3 is a complex unit showing horizontal and progradational reflectors, cut-and-fill structures or simply poor acoustic penetration. Five lithostratigraphic units were defined from borehole cuttings and cores. (1) The Uviluk Sand consists of well-sorted, fluvial and aeolian sand, representing possible outwash deposits formed more than 21,000 B.P. It may be contemporaneous with (2) the Tarsiut Silt, a marine to deltaic unit composed of predominantly silt and clay lithologies. The Tarsiut Silt formed between 27,000 years B.P. and possibly the early Holocene. (3) The Tingmiark Sand is interpreted as a second unit of fluvial and aeolian sand. Peat beds near the top of the unit are overlain by reworked marginal marine sands containing bivalve fragments. This unit is of late Wisconsinan to Holocene age and is incised by the large valleys defined by U/C 2 in seismic profiles. (4) The Kaslutut Sand consists of fine-grained sand and contains peat beds giving ages ranging from 17,730 years B.P. to 7,700 years B.P. It is probably correlative with the upper part of the Tingmiark Sand and corresponds to Sequence 2 of the seismostratigraphy. (5) The Sauvrak Clay consists of marine silty clay equivalent to Sequence 1 and was deposited following Holocene transgression. This stratigraphy records the geologic history of the Beaufort Shelf from approximately the middle Wisconsinan to the present. A late Wisconsinan glacial advance produced a sandy outwash plain, fed by channels originating in the Mackenzie Delta region, and deposited the Tingmiark Sand and marginal marine Tarsiut Silt. These channels later became incised as a response to a lowering of relative sea level (RSL). As RSL recovered, a complex transition took place from glacial-dominated sedimentation to sedimentation dominated by the Mackenzie River, including infill of the incised valleys, reworking of the Tingmiark Sand and deposition of the Kaslutut Sand and Sauvrak Clay. (Au)

B-308650

Coastal geology of the King Point area, Yukon Territory, Canada / Hill, P.R. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, [198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

At King Point, on the Yukon coast of the Canadian Beaufort Sea, a sand/gravel barrier is migrating landward across a sequence of lacustrine muds which were deposited in a thermokarst lake. The lacustrine deposits were laid down between 12 ka and the time of breaching of the thermokarst lake. Breaching occurred sometime later than 1.7 ka., but more likely a few hundred years ago. Estimates of sediment supply and barrier growth can best be reconciled if a model is assumed that involves initial erosion of a 1 km wide headland, an extension of a diamict ridge which forms King Point itself, followed by straightening of the coast and an increased sediment supply from gravel-rich cliffs north of the ridge. This is compatible with historical evidence for development of the barrier. Comparison of sediment supply, retreat rates and longshore sediment transport potential lead to the conclusion that the development of the barrier and coastal retreat are limited by the longshore transport potential. The evolution of the king point barrier is similar to that of gravel barriers in temperate regions, but short-term increases in sediment supply through thermal erosion of adjacent bluffs and erosion of the lower shoreface by ice-scouring may be important additional factors. (Au)

B-308668

Storm-dominated sedimentation on the inner shelf of the Canadian Beaufort Sea / Hill, P.R. Nadeau, O.C. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, [198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

The inner shelf of the Canadian Beaufort Sea is characterised by a succession of surficial fine-grained facies changes. Seaward of shoreface sands and silts, these facies are: (i) thin-bedded silt and clay couplets (<1 cm thick); (ii) massive to graded medium to thick-bedded silt beds (up to 20 cm thick); (iii) thin silt beds (<2 cm thick) with thick interbeds of bioturbated silty clay; and (iv) bioturbated silty clay with no silt beds. These facies are related to wave action at the seabed. The massive to graded medium to thick-bedded facies occurs between water depths of 4.2 m and 5.5 m and is interpreted to result from resuspension events by waves during storms. A nearbed region of suspended sediment concentration (SSC), observed near the 5 m isobath, increased in concentration during moderate storms. Time series of nearbed SSC and wave heights in 5.9 m of water recorded rapid resuspension resulting in SSC values of 4000 mg/l during a severe storm. The thin-bedded silt and clay facies found shoreward of this resuspension zone is interpreted to result from attenuation of wave energy in the resuspension zone. The amount of resuspension decreases shoreward resulting in thinner redeposited beds. Seaward of the resuspension zone, the frequency of bottom resuspension decreases with increasing water depth, reflecting the lower frequency of very large storm waves. This is reflected in the deeper water facies where bioturbated clay becomes the dominant facies, with thin silt beds representing infrequent bottom resuspension during the largest storms. (Au)

B-308676

Report of field activities, 1987 : Beaufort Sea coastal zone geotechnics / Hill, P.R. [Compiler]. Canada. Geological Survey.
[S.l] : Canada. Geological Survey, 1987.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Contents: Part 1: Field activities report, Ellice Island, Mackenzie Delta, N.W.T., July 12-August 20, 1987 / K. Jenner (Dalhousie University) – Part 2: Mackenzie River Delta sediment sampling, 1987 – K. Kranck and T. Milligan (Bedford Institute of Oceanography) / Part 3: Cruise report : C.S.S. John P. Tully, Beaufort Sea, August 7-12, 1987 / R.A. Harmes (Geological Survey of Canada) – Part 4: Cruise report: C.C.G.S. Nahidik, September 11-18, 1987, Beaufort Sea / P.R. Hill (Atlantic Geoscience Centre) – Part 5: Field survey and cruise report, U.S.G.S. R/V Karluk, 20 August – 16 September 1987, Tuktoyaktuk Peninsula coast and inner Beaufort Sea shelf / A. Hequette (Geological Survey of Canada) – Part 6: Beach dynamics study, Tibjak Beach, Beaufort Sea coast, August 22 to September 17, 1987 / P.R.

Hill (Atlantic Geoscience Centre) – Part 7: Far-field oceanographic measurements at the Amauligak F-24 well-site, August – October, 1987 / D.B Fissel, D. Tuele and O.J. Byrne (Arctic Sciences Ltd.).
G.S.C. project 830007.
Document not seen by ASTIS. Citation from NOGAP.
OOG

This document consists of 7 reports: 3 cruise reports, 1 field activity report, a sediment sampling report, a beach dynamics study, and an oceanographic measurements report. (ASTIS)

B-308684
Fine-grained storm deposits on the inner shelf of the Canadian Beaufort Sea / Hill, P.R. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
One page conference preprint with a handwritten note "AGS Colloquium 1988".
Document not seen by ASTIS. Citation from NOGAP.
OOG

The inner shelf of the Canadian Beaufort Sea is characterised by a seaward succession of seabed fine-grained facies. Seaward of shoreface sands and silts, the surficial facies show the following sequence: (i) thin-bedded silt and clay couplets (<1 cm thick); (ii) massive to graded medium to thick-bedded silt beds (up to 20 cm thick); (iii) thin silt beds (<2 cm thick) with thick interbeds of bioturbated silty clay; (iv) bioturbated silty clay with no silt beds. The massive to graded medium to thick-bedded facies occurs between water depths of 4.2 m and 5.5 m and is interpreted to result from major resuspension events in a zone of maximum wave energy during large storms. Oceanographic measurements support this interpretation: a nearbed maximum of suspended sediment concentration (SSC) is observed centred at the 5 m isobath and increases in intensity during moderate storms. Time series of nearbed SSC and wave heights at 5.9 m water depth record strong resuspension resulting in SSC values of 4000 mg/l during strong storm conditions. The thin-bedded silt and clay facies found shoreward of this strong resuspension zone can be interpreted to result from attenuation of wave energy in the resuspension zone. The amount of resuspension therefore decreases shoreward resulting in thinner beds. Seaward of the strong resuspension zone, the frequency of bottom sediment resuspension decreases with water depth, reflecting the lower frequency of very large storm waves. This is also reflected in the deeper water facies where bioturbated clay becomes the dominant facies, with thin silt beds representing infrequent bottom resuspension during the largest storms. (Au)

B-308692
Marine geology of the Canadian Beaufort inner shelf and coastal zone / Hill, P.R. Hequette, A. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
One page preprint with a handwritten note saying: "G.A.C. 1988".
Document not seen by ASTIS. Citation from NOGAP.
OOG

The Beaufort Shelf has undergone marine transgression during the Holocene. The thickness and lithology of Holocene sediments on the inner shelf varies according to sediment supply, pre-Holocene topography and sedimentary processes (primarily by waves and currents). Sediment supply is dominated by the Mackenzie River which supplies largely silt and clay and which has constructed a large multi-distributary delta. The silt and clay is transported eastward and forms thick inner shelf deposits seaward of the Mackenzie Delta and Richards Island, and in Kugmallit Bay. Sand and gravel are supplied primarily by erosion of low-lying Pleistocene cliffs along the Yukon coast and to the north and east of the Mackenzie Delta. The Yukon sector of the inner shelf is sediment starved and consists of an erosive platform. East of the Mackenzie Delta, sandy coastal deposits and landforms are common. Off Richards Island, transgressive silts and clays overlie sandy coastal sediments, while off the Tuktoyaktuk Peninsula, the inner shelf is predominantly sandy and Holocene accumulation is relatively thin. The Mackenzie Trough and two large late Wisconsinan outwash valleys have been filled with fine-grained sediment during transgression: Holocene sediment thicknesses in these areas exceed 20 m. The Beaufort Shelf is storm-dominated and wave energy generally increases from west to east. In areas of fine-grained sediments, large storm waves cause massive resuspension and subsequent redeposition of sediments. (Au)

B-308706
The Beaufort Sea coastal zone geological and geotechnical constraints to offshore development / Hill Geoscience Research. Hill, P.R. Atlantic Geoscience Centre [Sponsor].
Halifax, N.S. : Hill Geoscience Research, 1989.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
One page preprint with a handwritten note "G.S.C. Forum, Calgary, 1989.
Document not seen by ASTIS. Citation from NOGAP.
OOG

The coastal zone is a critical area of concern during the development of oil and gas from the Beaufort Sea. The placement of artificial islands, pipeline landfalls and shore facilities in this coastal zone is likely to be required to facilitate production. A long term program to (i) measure rates of coastal erosion and deposition, (ii) determine seabed properties and (iii) understand important sedimentary processes was begun under the Northern Oil and Gas Action program. With the exception of a few limited areas of accretion, the Beaufort coast is retreating at rates ranging from less than 1 m/a to more than 20 m/a on average. A monitoring program to determine rates and variability in coastal retreat has been established and erosion of up to 6 m have been observed over one year periods. A preliminary seismic stratigraphy has been established for the coastal area between Shallow Bay and Atkinson Point. In the vicinity of the Mackenzie Delta, a thick sequence of fine-grained sediments has accumulated during the Holocene. A mid-Holocene delta front seaward of the present delta has been identified and also indicates that the coast is presently being transgressed. Holocene sediments become thinner to the east where higher elevations of coarser Pleistocene sediments have prevented direct accumulation of Mackenzie-derived sediment except in drowned valleys relict from a lower stand in sea-level. Seaward of the Tuktoyaktuk Peninsula, thin late Holocene sediments overlie Pleistocene outwash sands and early Holocene thermokarst lake deposits. Transgression in this area is marked by the development and landward migration of sandy spits and barriers. The physical properties of sediments in the coastal zone are influenced by this depositional history and modern wave-dominated depositional processes. Waves actively resuspend bottom sediments during storms. Storm deposits are characterised by graded fine sand and silt beds with relatively thin clay interbeds. These deposits have distinctive geotechnical properties and are characteristically overconsolidated. Seabed scour related to storm wave conditions as an important concern to the design of a pipeline crossing the area. (Au)

B-308722
A small boat survey of the Lougheed – King Christian – Cameron islands region of the northwestern Canadian Arctic using open water leads / Sonnichsen, G.V. Atkinson, A. Canada. Geological Survey.
[S.l. : s.n., 1987?].
[3] leaves ; 28 cm.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
(Open file – Geological Survey of Canada, no. 1903)
Title page includes the following information: "Report of field activities, AGC program #87-100".
References.
Document not seen by ASTIS. Citation from NOGAP.
OOG

... Sixteen leads with a combined length of 280 km were surveyed in 1987 (Figure 2). A total of 310 line-kilometres of sparker, 225 km of 12 kHz profiles, and 43 km of Bubblepulser were collected (Table 2). The longest survey line was 44 km and the shortest was approximately 3 km. Bottom samples were collected from 3 locations during the survey (Fig. 3, Table 2). Two sites were chosen along Lead 2 based on the acoustic profiles. A marker had been placed on the lead edge for the first sample location. The second had to be located by the helicopter's Omega navigation system and landmarks; this was much less satisfactory and was only successful on the second attempt. A grab sample was first collected to determine the water depth at each site, followed by a gravity core. Then bottom photographs were attempted at the location. ... Subbottom penetrations on the sparker seismic profiles of up to 80 m (water velocity, 1500 m/s) show gently dipping to near horizontal strata of sedimentary bedrock, overlain by unconsolidated sediments ranging from less than 5 m (Figure 5) to at least 45 m thick. Sediments are tentatively divided into two stratigraphic units on the basis of their acoustic character. The lowermost, which is both the most widespread and the thickest, rests directly on the underlying bedrock. This unit consists of unstratified sediments of variable thickness, with a typically hummocky and sometimes incised surface (Figure 6). This unit is interpreted to be glacial drift on the basis of its constructional character and similarity to marine sediments interpreted as glacial drift elsewhere (King and Fader, 1986; Josenhans et al., 1986; Praeg et al., 1986). The incised seabed relief is interpreted to be iceberg scours, which are probably relict considering the absence of icebergs in the area at present. In some areas this lower unit has a smoother surface relief and a more transparent acoustic character. Sediments with similar character are observed in Austin Channel where they are interpreted as glacial drift on the basis of sample data (MacLean et al., in prep.). These variations in character may reflect changes in the sediment sources or depositional processes, e.g., ice loading associated with the drift. The 12 kHz acoustic profiles show that in places the lower unit is overlain by an acoustically unstratified, transparent unit with a smooth surface which is ponded in bathymetric depressions or draped over the underlying sediments. Thicknesses range from less than 1 m up to 5 m. Despite only localized appearances of the unit on the acoustic profiles, sediment sample data indicate this unit is regionally extensive. This disparity suggests the upper unit forms an extensive veneer thinner than the resolution of the acoustic systems used. The upper unit is interpreted to represent postglacial mud because of its stratigraphic position and its similarity to postglacial muds in other Canadian Arctic areas (Praeg et al., 1986). Also, acoustically and texturally similar muds identified in Jones Sound contain shells dated between 2610 +- 110 and 8410 +- 200 years BP (G. Vilks, 1986, pers. comm.). (Au)

B-308730

Geomorphology and bedrock geology of southern Norwegian Bay, Queen Elizabeth Islands, Northwest Territories / Praeg, D.B. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, [198-?].
1 v. : ill., maps.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
(Open file – Geological Survey of Canada, no. 1925)
References.
Document not seen by ASTIS. Citation from NOGAP.
OOG

This report presents marine geological information derived from echosounding and shallow seismic reflection surveys carried out in Norwegian Bay south of 77 30 N (Figure 1) in September, 1987 from CSS Baffin during BIO cruise 87-027, a collaborative program by the Canadian Hydrographic Service (CHS) and the Atlantic Geoscience Centre (AGC) (Praeg, 1987). Previous bathymetric information for this area was largely limited to spot soundings obtained through the near-perennial sea ice cover (CHS chart 7950). The regional bedrock geology is well-known from surface mapping of the adjacent islands (Balkwill et al., 1983), and from subsurface geophysical and well information (Hea et al., 1980), but the near-surface bedrock geology of Norwegian Bay was previously unreported. Bathymetric and geologic maps are presented at a scale of 1:250,000 (Sheets 1 to 3, attached). The bathymetric map (Sheet 1) is of a generalized nature and is not intended for navigation; color shaded relief plots of the bathymetry are also included in the report (Figure 2). The geologic maps present both surface (Sheet 2) and subsurface (Sheet 3) information. The report includes supporting information from the Panarctic et al. North Buckingham L-71 well (Figure 3), and from seismic reflection profiles (Sections 1 to 12). ... Sheet 1 and Figure 2 show that depths of less than 100 m extend offshore from the islands as shelves, and occur as banks in Belcher Channel and eastern Norwegian Bay. Shelves are especially prominent off Devon Island, and between North Kent and Graham islands where they form a sill that divides the bay into western and eastern basins. Figure 2 shows that the surfaces of the shelves are dissected by small channels, which in some cases separate small banks. Below 100 m shelves and banks give way to a series of troughs, in excess of 400 m deep in the western and eastern basins. The western basin is the convergence of troughs extending east from Belcher Channel, north from the area of Arthur Fiord, northwest from Cardigan Strait, and west from the sill between North Kent and Graham Islands. Cardigan Trough (informal name) is steep-sided with an irregular overdeepened floor locally over 350 m deep. The two adjacent troughs are broader and shallower, with irregular floors. Figure 2 shows that the shallowing of the basin and trough walls is marked by steep areas (or scarps) with 10's of metres relief, resulting in a stepped appearance. The western margin of the basin and the walls of Cardigan Trough are marked by especially prominent sets of scarps, with overall relief of 100's of metres. The eastern basin contains a prominent trough that deepens northeast from Hell Gate, and is connected to troughs to the east separated by two north-south ridges. The easternmost trough extends north along Ellesmere Island from the mouths of a group of fiords, and has depths of over 350 m. Section 2 shows that Hell Gate Trough (informal name) has prominent stepped walls, with total relief of 100's of metres. The smoother appearance of the eastern trough walls on Figure 2 largely reflects the local 2 km grid size, although bottom profiles do show that scarps are less common there despite relief of 100's of metres. (Au)

B-308749

Marine geological and geotechnical investigations in Wellington, Byam Martin, Austin and adjacent channels, Canadian Arctic Archipelago / MacLean, B. Sonnichsen, G. Vilks, G. Powell, C. Moran, K. Jennings, A. Hodgson, D. Deonarine, B. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, [1986?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Handwritten note on the title page says: "GSC paper".
Document not seen by ASTIS. Citation from NOGAP.
OOG

Marine geological and geophysical investigations were carried out in Wellington, Byam Martin and Austin channels, and in eastern Barrow Strait-western Lancaster Sound from CSS HUDSON in 1986. These provided information on: the distribution, thickness, composition, depositional environments, geotechnical properties, and regional geological setting of the surficial sediments, and structure of the near surface bedrock. The data indicate widespread occurrence of sediments of apparent glacial origin (glacial drift) which overlie variably dipping sedimentary bedrock, and are in turn locally overlain by up to a few metres of acoustically stratified and acoustically transparent sediments, interpreted to represent glaciomarine and postglacial sediments respectively. The drift unit locally forms constructional features interpreted to be moraines, and in places contains multiple sequences. Surficial sediment thicknesses in Wellington Channel commonly are

less than 10 metres but locally reach 25 metres, are somewhat greater in Byam Martin and Austin Channels (up to 50 m), and generally greater in eastern Barrow Strait, where they locally reach 100 m. Geotechnical, foraminiferal and textural data show consistent correlations with one another and with the acoustic stratigraphic units. The postglacial sediments have high water content, low bulk density and low shear strength: the converse applies to the glaciomarine and glacial drift sediments. Foraminifera are relatively diverse in the postglacial sediments, less diverse in the glaciomarine sediments, and the glacial drift is barren. Magnetic susceptibility data suggest that most of the sediments probably are derived from Paleozoic rocks of the Arctic Islands, but that glacial drift in northern Prince Regent Inlet and glaciomarine sediments in eastern Barrow Strait-Lancaster Sound may have been derived partly from Precambrian rocks bordering part of Gulf of Boothia south of Prince Regent Inlet. Some seafloor sediments, particularly the glacial drift, have been modified by ice scour. (Au)

B-308757

Report of Atlantic Geoscience Centre activities in the Arctic Island channels during CSS Baffin cruise 87-027 / Praeg, D.B. Atlantic Geoscience Centre.

[Dartmouth, N.S.] : Atlantic Geoscience Centre, [1987?].

1 v. : ill., maps.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

(Open file – Geological Survey of Canada, no. 1694)

References.

Document not seen by ASTIS. Citation from NOGAP.

OOG

The geophysical records and sediment samples obtained in Norwegian Bay (Figure 2) provide information on bedrock geology, unconsolidated seabed sediments, and seabed features. Geophysical records show that the bay is underlain by an acoustically broadly to closely stratified sequence indicative of gently deformed to flat-lying strata of sedimentary bedrock (Figure 3). Angular unconformities within this sequence (Figures 4,5) suggest division into at least 3 units, which probably include correlatives of both the Paleozoic sedimentary strata of Ellesmere Island/Grinnel Peninsula, and the Mesozoic sedimentary strata of Graham and Cornwall Islands. Most of the large-scale morphologic features of the bay have been carved into these units. This is demonstrated by truncated strata on slopes (Figures 3,4), which are common throughout the bay; steeper slopes are often separated by areas of gentler slope, resulting in a broadly 'stepped' appearance. Structural control on morphology may also be important for a few ridges and trough on the eastern side of the bay (Figure 5), and in Belcher Channel. Unconsolidated sediments in the bay are thin, generally less than 5 m (Figures 3,7), although thicker accumulations (up to 30 m) occur southwest of Graham Island (Figure 6), on the eastern side of the bay (Figure 5), and locally (Figure 4). The sediments are distinguished from the underlying bedrock by an angular unconformity; this is readily recognized from reflector truncations, but the unconformity surface itself is often poorly defined (Figures 6,7). Two main sediment types are recognized: (1) acoustically unstratified sediments with an irregular surface, which vary in thickness from less than 5 m to accumulations up to 30 m (Figures 5,6), and (2) overlying acoustically transparent (muddy) sediments with a smooth surface (Figure 8), which occur in deeper water both southeast and west of Graham Island, and in the southwest corner of the bay, in thicknesses up to 5 m, 2 m and 3 m respectively. Acoustically stratified sediments occur locally at the base of the mud west of Graham Island (<1 m thick), and at the foot of a steep slope southeast of Graham Island (<6 m thick). The two main sediment types resemble units interpreted as glacial drift and overlying post-glacial mud in other channels of the Arctic Archipelago (MacLean and Vilks, 1986; Sonnichsen and MacLean, in press). ... (Au)

B-308765

A reconnaissance study of the marine geology of the Lougheed – King Christian – Cameron islands region, northwest arctic island channels / Sonnichsen, G.V. MacLean, B. Atlantic Geoscience Centre.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

(Current research – Geological Survey of Canada, paper 88- 1D, p. 115-120, ill., 1 map)

References.

ACU

A marine geophysical and geological survey was conducted in July and August, 1987, in the Arctic Island channels east of Lougheed Island and south of King Christian Island. This helicopter-supported program used inflatable boats operated in open-water leads that form in the near-perennial ice cover during the summer thaw. Sixteen leads and over 280 km of seafloor were surveyed with single-channel sparker and 12 kHz profiling systems. Subbottom penetrations as deep as 80 m show gently dipping strata of sedimentary bedrock, overlain by unconsolidated sediments ranging from less than 5 m to at least 45 m. Sediments interpreted to be glacial drift are the thickest and the most widespread. These are over-lain by up to 5 m of draped and sometimes ponded, acoustically transparent sediments, which are interpreted to be postglacial marine muds. Sediment samples and bottom photographs were collected at three locations along the leads. (Au)

B-308773

Studies of the Quaternary sediments of Wellington, Byam Martin and adjacent channels, Canadian Arctic Archipelago / MacLean, B. Sonnichsen, G. Powell, C. Taylor, R. Hodgson, D. Jennings, A. Vilks, G. Atlantic Geoscience Centre.

[S.l. : s.n., 1987?].

3 leaves : 28 cm.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Handwritten note on page one indicates "16th Arctic Workshop, 1987".

Paper presented at Arctic Workshop, 16th, Edmonton, Alta., 30 Apr.-2 May, 1987.

Document not seen by ASTIS. Citation from NOGAP.

OOG

Unconsolidated seabed sediments in Wellington, Byam Martin and Austin channels, and parts of northern Viscount Melville Sound and Barrow Strait, were investigated from CSS Hudson in 1986 by means of acoustic profiling and sediment sampling. Acoustic and sample data were also obtained farther north in the Lougheed-Cameron-Melville Island region from small boats in sea ice leads. Regionally, acoustic data show the widespread presence of an irregular, lowermost unit overlying bedrock, which lacks coherent acoustic reflectors and is interpreted to be glacial drift (till). This unit is locally overlain by up to a few metres of acoustically stratified and/or acoustically transparent mainly silty and clayey sediments which contain some coarser apparently ice-transported clasts. These sediments are inferred to represent glaciomarine and post-glacial marine deposition. In Wellington Channel, unconsolidated sediments are commonly less than 5 m and rarely more than 10 m thick. ... Surficial sediments in Byam Martin and Austin channels, in general, are thicker than in Wellington. ... In northern Viscount Melville Sound glacial drift, up to 18 m thick, is the main sediment unit. ... In eastern Barrow Strait, glacial drift deposits are up to 100 m thick and locally contain multiple sequences and form apparent morains. These sediments are variably overlain by acoustically stratified and acoustically transparent muddy sediments, that reach 4 m and 7 m in thickness, respectively. No chronological information is available yet for these sediments nor have correlations been made with the generally sparse and undated glacial deposits on adjacent islands. The grounded or floating glaciers responsible for the drift in the channel floors may have originated locally or been part of more regionally extensive ice sheets. (Au)

B-308781

Quaternary geology of arctic interisland channels / MacLean, B. Vilks, G. Sonnichsen, G. Atlantic Geoscience Centre.

Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
One page preprint with a handwritten note indicating: "GAC, May 1988".
Document not seen by ASTIS. Citation from NOGAP.
OOG

Wellington, Byam Martin and Austin channels, eastern Barrow Strait, and Norwegian Bay contain widespread deposits of glacial drift, locally overlain by thin (typically 2 to 3 m) deposits of glaciomarine and postglacial sediments. Locally the drift forms positive features interpreted as moraines and in places contains multiple sequences. The glacial drift may include deposition by both local ice caps and more regionally extensive ice sheets. Regionally the surficial sediments range from a few metres to 30 metres, but thicker deposits occur locally, e.g. to 100 m in eastern Barrow Strait. Geotechnical, foraminiferal and textural data show consistent relationships between piston cores and with the acoustic stratigraphic units recognized from high resolution seismic profiles. The postglacial sediments have high water content, low bulk density and low shear strength; the converse applies to glaciomarine and glacial drift sediments. Foraminifera are relatively diverse in the post glacial sediments have high water content, low bulk density and low shear strength; the converse applies to glaciomarine and glacial drift sediments. Foraminifera are relatively diverse in the post glacial sediments, less diverse in glaciomarine sediments, and the glacial drift is barren. The surficial sediments lie on variably dipping sedimentary rocks which are structurally more complex in Norwegian Bay than farther west. (Au)

B-308790
Quaternary sediments in interisland channels of the Canadian Arctic Archipelago / MacLean, B. Milks, G. Sonnichsen, G. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, 1987.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
One page preprint with a handwritten note indicating: "The Canadian Arctic Islands Missing Dimension, Ottawa, November 1987.
Document not seen by ASTIS. Citation from NOGAP.
OOG

During the summer of 1986, Quaternary seabed sediments in Wellington, Byam Martin and Austin channels, parts of northern Viscount Melville Sound, eastern Barrow Strait, and the Lougheed-Cameron Islands region were investigated by acoustic profiling and sediment sampling. The surveys show the widespread presence of an irregular, acoustically incoherent, lowermost unit overlying the bedrock, and interpreted to be glacial drift. The glacial drift is overlain by up to a few metres of acoustically stratified and acoustically transparent sediments interpreted to be glaciomarine and post glacial, respectively. The total sediment thicknesses commonly are less than 5-10 metres in Wellington Channel, but locally reach 22 m in two moraine-like accumulations in the southern half of the channel. The glaciomarine and post glacial sediments mainly are confined to the northern part of the channel. Glacial drift deposits in the Byam Martin-Austin Channel and Lougheed-Cameron Island regions locally reach 53 m in thickness and in places contain multiple sequences and possible moraines, but younger sediments occur only locally and amount to only a few metres in thickness. Quaternary sediments of eastern Barrow Strait include glacial drift which locally reaches 100 m in thickness with some multiple and moraine-like developments. "Glaciomarine" and "post glacial" sediments occur mainly in the bathymetric depressions where they reach maximums of about 3 m and 7 m, respectively. No chronological data yet are available for these offshore sediment units within the study area. The onshore Quaternary record in places includes late Wisconsinan tills, earlier tills of undetermined ages, as well as evidence of marine transgressions and subsequent emergence. (Au)

B-308803
Late Wisconsinan paleoceanography: Canadian Arctic Archipelago / MacLean, B. Sonnichsen, G. Vilks, G. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, [198-].
1 leaf ; 28 cm.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Abstract of paper presented at INQUA.
Document not seen by ASTIS. Citation from NOGAP.
OOG

Since 1985, extensive studies in the marine channels of the Canadian Arctic Archipelago have been carried out by shallow high resolution reflection seismics and seabed sampling with cores and bottom grabs. In all the channels investigated to date, seismic profiles show evidence of glacial drift deposits intermittently overlain by acoustically laminated and transparent sediments. On the west side and south end of the Wellington Channel, a ridge of drift deposits is interpreted as glacial moraine. There is some evidence for multiple drift sequences locally in Wellington and Byam Martin Channels and in Barrow Strait. Differences in acoustic character suggest that these may represent separate glacial events. The total thickness of unconsolidated sediments ranges from 2-20 metres in Wellington Channel, locally up to 50 metres in Byam Martin Channel and up to 70 metres in eastern Barrow Strait. The relatively thin sediment cover observed over the bedrock in most of the channels consists predominantly of glacially deposited sediments. Laminated glacial marine and the transparent post glacial sediments are relatively poorly developed. Lag deposits suggest winnowing of bottom sediments by currents in some localities, for example in Wellington Channel. Sidescan sonograms of the sea floor in many areas show iceberg scours, which are interpreted as mainly relict. (Au)

B-308811
Geological studies of interisland channels of the Canadian Arctic Archipelago / MacLean, B. Vilks, G. Sonnichsen. G. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, 1988.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

Investigations of seabed geology of interisland channels of the Canadian Arctic Archipelago have been undertaken by the Atlantic Geoscience Centre during the last three years. ... The investigations dealt primarily with the Quaternary sediments: their distribution, composition, thickness, geotechnical properties, depositional environments, modifying processes, and regional geological setting. These studies have also provided reconnaissance information on the near surface bedrock. The information was gathered in Wellington, Byam Martin and Austin channels, and eastern Barrow Strait from CSS Hudson in 1986, using conventional geophysical profiling and geological sampling techniques. Similarly, data was collected in Norwegian Bay from CSS Baffin in 1987. Helicopter transported small boats were used for surveys with portable seismic systems in leads in the permanent and semi-permanent sea ice of the Lougheed-King Christian-Cameron-Melville island region during 1986 and 1987. Through-the-ice sediment sampling was also carried out in the latter area in 1985. The seismic data suggest that glacial drift is the most widespread and thickest surficial sediment unit. The drift deposits range in thickness from less than 5 m to more than 20 m locally in Wellington Channel, to 50 m or more in parts of Byam Martin and Austin channels, to 40 m in the Lougheed-King Christian island region, to 30 m in Norwegian Bay, and up to 100 m locally in eastern Barrow Strait. Apparent morainal accumulations and multiple drift sequences have been observed locally on acoustic profiles in these areas. ... (Au)

B-308820
Surficial and bedrock geology of arctic marine channels / MacLean, B. Vilks, G. Sonnichsen, G. Moran, K. Praeg, D. Hodgson, D. Jennings, A. Atlantic Geoscience Centre.
Dartmouth, N.S. : Atlantic Geoscience Centre, 1989.
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.
OOG

Geological studies have been carried out in Wellington, Byam Martin and Austin Channels, eastern Barrow Strait, Norwegian Bay, and in the Lougheed-King Christian-Cameron islands region. Glacial drift is the thickest and most widespread surficial sediment unit in each of these areas. Moraines and multiple drift sequences are present locally. Glaciomarine and postglacial sediments up to a few metres in thickness mantle the drift in bathymetric depressions. These sediment units each have distinctive texture, geotechnical properties, foraminiferal assemblages, and acoustic character. Paleozoic sedimentary rocks appear to underlie most of the interisland channels surveyed. In Norwegian Bay these are overlain northward by Mesozoic-Cenozoic strata of the Sverdrup Basin. (Au)

B-309664
Geological investigations of the Canadian Beaufort Sea coast / Hill Geoscience Research. Hill, P.R. Hequette, A. Ruz, M.-H. Jenner, K.A. Atlantic Geoscience Centre [Sponsor].
Dartmouth, N.S. : Atlantic Geoscience Centre, 1991.
xvi, 348 p : ill., maps ; 28 cm.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Appendix.
References.
OORD

Although AGC had proposed a six-year program, funding for the program was approved by Treasury Board for a four-year period, 1984-1988. The entire NOGAP program was terminated in 1988, after the initial four years, with the loss of the assigned person-years and leaving a large amount of data unsynthesized. Funds to complete the project and this report were obtained from the Marine Environmental Initiative of the Geological Survey of Canada and from PERD 6.3. Hill Geoscience Research was contracted to undertake three main tasks: (i) to synthesize and make preliminary interpretations of the various data sets collected in the course of the AGC research program; (ii) to determine future priorities for coastal zone research in the Beaufort Sea; and (iii) to recommend a new program of research to meet those priorities. The intent of this report is to provide a comprehensive summary of our knowledge about the coastal zone. For purposes of this report, the coastal zone is defined as the region between the cliff line and the 10 m isobath, including depositional landforms such as deltas, spits and barrier islands. The report only includes analyses of field data collected by AGC or its contractors. Additional published information describing the adjoining offshore and land geology are included as background. For more detailed accounts of the terrestrial geology, permafrost and ground ice, the reader should contact the Terrain Sciences Division of the Geological Survey of Canada. ... (Au)

See also: A-308714, C-308528, C-308544, C-308560, D-308420, D-308595, D-308609, D-309494, D-309540, G-308579, G-308587, G-308625, I-309559, J-309680, Q-308510, Q-308536, U-306495, U-308838, U-308846, U-308927, U-309028, U-309079, U-309109, U-309117, U-309176, U-309222, U-309273, U-309290, U-309370, V-309656, X-309389.

C – SOILS AND PERMAFROST

C-308528
Geothermal and geomorphic observation, 1984-1987 / Burgess, M.M. Harry, D.G. Canada. Dept. of Indian Affairs and Northern Development.
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
(Canadian geotechnical journal, v. 27, 1990, p. 233-244)
Document not seen by ASTIS. Citation from NOGAP.
OORD, OOG

A long-term permafrost and terrain research and monitoring program along the 869 km buried oil pipeline between Norman Wells, Northwest Territories, and Zama, Alberta, has been undertaken by the Geological Survey of Canada, in cooperation with the Department of Indian and Northern Affairs Canada. The two main program components are (1) the detailed qualification of changes in the geothermal regime and geomorphic conditions at instrumented monitoring sites and (2) general observations of terrain conditions and performance along the pipeline route. Pipeline operation commenced in April 1985. Observations during the first 2.5 years of pipeline operation indicate that, as expected, the pipe thermal regime and ground thermal regime have not yet stabilized in response to construction and operation. Warming trends in both mean annual pipe temperature and mean annual right-of-way ground temperature have occurred. Surface settlement in permafrost terrain is ongoing in the pipe trench as well as on the remainder of the right-of-way. Surface erosion has occurred, particularly at stream crossings and on low-angle slopes lacking erosion control structures. (NOGAP)

C-308544
Norman Wells pipeline permafrost and terrain monitoring geothermal and geomorphic observations / Burgess, M.M. Harry, D.G. Canada. Dept. of Indian Affairs and Northern Development.
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
(41st Canadian Geotechnical Conference, Kitchener, October 1988, preprint volume. – [S.l. : s.n.], 1988, p. 354-363)
Document not seen by ASTIS. Citation from NOGAP.
OORD

A long term permafrost and terrain research and monitoring program along the 869 km Norman Wells to Zama pipeline has been undertaken by the Geological Survey of Canada, in cooperation with Indian and Northern Affairs Canada. The two main program components are: (1) the detailed quantification of changes in the geothermal regime and geomorphic conditions at instrumented monitoring sites, and (2) general observations of terrain conditions and performance along the pipeline route. Observations during the first 2.5 years of pipeline operation indicate that the pipe thermal regime and ground thermal regime have not yet stabilized in response to construction and operation. Right-of-way surface settlement in permafrost terrain is ongoing. Surface erosion has occurred, particularly at stream crossings and on low angle slopes. (NOGAP)

C-308552
Norman Wells pipeline monitoring site ground temperature date [sic] file : 1987 / Burgess, M.M. Naufal, J.A. Canada. Dept. of Indian Affairs and Northern Development.
[S.l. : s.n.], 1989.
27 p.
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)

(Open file – Geological Survey of Canada, no. 1987)
Appendices.
Document not seen by ASTIS. Citation from NOGAP.
OORD, OOG

This report is a collection of all the temperature data gathered in 1987 at the Geological Survey of Canada/Indian and Northern Affairs ground thermal regime monitoring sites along the Norman Wells pipeline. Date from 145 cables are presented in both graphical and tabular form. (NOGAP)

C-308560
Land slide processes in permafrost soils along proposed pipeline corridors, Mackenzie Valley, Northwest Territories : Interim report / Savigny, K.W. Institute for Research in Construction (Canada) [Sponsor]. Northern Affairs Program (Canada). Land Management [Sponsor].
[S.l. : s.n.], 1991.
65 p. : ill.
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
Document not seen by ASTIS. Citation from NOGAP.
OORD

This research is part of increased monitoring of slope stability in the Mackenzie Valley pipeline corridor. The objectives include: (a) renewal of in situ monitoring of creep movements at the proposed Canadian Arctic Gas crossing of the Great Bear River near Fort Norman; (b) evaluation of how creep movements may be interrelated with landslide processes; and, (c) reconnaissance of the existing pipeline right-of-way and proposed pipeline corridor from Thunder River to approximately Fort Simpson. Aerial photography of the proposed Canadian Arctic Gas crossing was obtained. Fort Norman residents were hired to cut re-growth. Instrument installations were completed in August, 1990. Instruments were read and surveys carried out in August and September, 1990. A reconnaissance of the Mackenzie Valley pipeline corridor from Thunder River to Fort Simpson was completed. Although too little time was available for detailed study, three broad issues that may have a long-term influence on utilization of the corridor are discussed. The influence of fire on slope processes is considered using the 1986 fires in the Thunder River area as an example. Debris avalanche and debris torrent activity along portions of the corridor, and the impact these mass wasting processes have on hydraulic design at stream crossings are examined with reference to recent severe storms in the Wrigley area. Finally, retrogressive slumps involving failure of frozen material are discussed in light of a suspected increased frequency of these landslides in the Mackenzie Valley. (NOGAP)

C-309729
Site and soil descriptions for the Norman Wells pipeline soil temperature study / Tarnocai, C. Kroetsch, D.J. Land Resource Research Centre (Canada).
Ottawa : Land Resource Research Centre, 1990.
46 p. : 1 map ; 28 cm.
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
(Land Resource Research Centre (Canada). Contribution, no. 89-56)
Appendices.
References.
OOFF

Soil temperature probes were installed and the associated soils were described and sampled at thirteen locations along the Norman Wells pipeline. In this report detailed site and soil descriptions and chemical and physical data for each of the soils are presented. The mineral soils occurring at the sites developed on lacustrine, till, alluvial and eolian materials. Organic soils also occur at some of the sites, they developed on peat materials. (NOGAP)

See also: B-308455, B-308463, B-308471, B-308641, B-308706, B-309664, I-204188, J-309680, Q-308510, Q-308536, U-309176, X-308501.

D – OCEANOGRAPHY

D-308420
Report on the "computer-based analysis of digital bathymetric data" : Beaufort Sea / Challenger Surveys & Services Ltd. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
Edmonton, Alta. : Challenger Surveys & Services Ltd., 1988.
vi, 148 leaves : ill. ; 29 x 45 cm.
(NOGAP project no. A.04 : Granular resources inventory and management program)
OORD, NWYIN, ACU

The report describes the analysis of selected bathymetric features on the Yukon Shelf and in the Erksak borrow area of the southern Beaufort Sea. Several seabed bathymetric anomalies that could potentially contain granular resources were identified on small scale three-dimensional mesh perspectives of each of the two main study areas. Using subsets of the main digital terrain model, more detailed analysis of the individual features was then undertaken. For each feature, a series of detailed mesh perspective, profile and spot bathymetry plots are presented. Comments on other bathymetric data analysis techniques, such as the removal of regional slope, and on the likelihood, based on their morphology, of the features containing granular materials are also included. The report concludes that computer-based analysis of bathymetric data can be very useful in granular resource identification and evaluation when used directly in conjunction with geological and geophysical data. It recommends that the mesh generating software be implemented on microcomputers so that geophysical and geological data interpreters are able to make use of available digital bathymetric data and to view identified features from any perspective. (NOGAP)

D-308595
A study of the occurrence of strudel scours in the Canadian Beaufort Sea / Pilkington and Associates. P.F.L. Arctic and Offshore Technology Ltd. Canada. Supply and Services Canada [Sponsor].
S.L. : [Supply and Services Canada, 198-?].
1 v.
(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)
Document not seen by ASTIS. Citation from NOGAP.

In the spring the rivers along the coast of the Canadian and US Beaufort Sea rise and, because the ice near shore extends down to the seabed, the river water floods over the ice forming a layer of water up to 90 cm deep. The water finds holes in the ice (seal holes or cracks) and drains off the ice through these holes forming a vortex or "strudel" which penetrates the water column and scours into the sea floor forming "strudel scours". Strudel scours off the Alaska coast can be over 25 m diameter and 6 m deep, thus a strudel scour below a pipeline could cause a serious foundation stability problem. Strudel scours have been found off the Alaskan coast but never in the Mackenzie Bay area of the Canadian Beaufort Sea, although one was found in Phillips Bay. This study indicates that most of the elements needed to form strudel scours exist in the Mackenzie Bay from Shallow Bay to North Point, i.e., grounded ice near shore, flooding of the ice in May, soft seabed sediments, etc. ... In summary we cannot see why there would not be strudels and strudel scours in the Mackenzie Bay area. ... Strudel scouring would also be expected in Liverpool Bay by the Anderson and Mason rivers and have already been observed in

Phillips Bay. These areas are of far less industrial importance than the Mackenzie Bay at this time. (Au)

D-308609

Beaufort Sea coastal sediment study (continuation) : Evaluation of inshore wave climate and coastal sediment transport prediction techniques at King Point, Yukon / Keith Philpott Consulting Limited. Pinchin, B.M. Nairn, R.B. Canada. Geological Survey [Sponsor].

Toronto : Keith Philpott Consulting Limited, 1987.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Document not seen by ASTIS. Citation from NOGAP.

OOG

This study was intended to evaluate a series of coastal processes estimation techniques using field data measured at King Point, Yukon Territories during an earlier study by Dobrocky Seatech Ltd. The techniques and phenomena to be considered were parametric wave hindcasting, spectral wave refraction, wave generated alongshore currents and alongshore sediment transport, and surge induced coastal profile adjustment. The measured data from the earlier study were not of sufficient quality to enable the study to be conducted as thoroughly as intended. However, it was possible to examine the wave hindcasting process in detail over a moderate four day storm, improving the understanding of wave generation at King Point. Different methods of predicting bottom roughness and its influence on alongshore currents and alongshore sediment transport were also investigated but there was not sufficient data to determine the best method. Profile response due to onshore-offshore sediment transport could not be evaluated with the available data. The effect of a coastal structure at King Point was evaluated in a separate report which is also bound in this cover. (Au)

D-308617

Current and directional wave measurements in the Beaufort Sea coastal zone, August – September, 1987 / Arctic Sciences Limited. Fissel, D.B. Byrne, O.J. Atlantic Geoscience Centre [Sponsor].

Dartmouth, N.S. : Arctic Sciences Ltd., 1988.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Document not seen by ASTIS. Citation from NOGAP.

OOG

An extensive set of current and directional wave data were collected within 700 m of the Beaufort Sea coastline over a 21 day period. During this period, a combination of five significant wind events and comparatively large open water fetch resulted in substantial wave activity within the coastal zone. The wave events had a significant wave height of 0.6 to 1.3 and peak periods of 6.5 to 9.8 seconds. Large wave orbital velocities were measured during wind events, with typical amplitudes of 0.2 to 0.4 m/s and peak values of up to 1.3 m/s. The wind-driven alongshore currents were generally low amplitude (up to 0.35 m/s) and not correlated to wind and wave activity. Peak current fluctuation amplitudes greatly exceeded the alongshore current by a factor ranging from 3 to 10. (NOGAP)

D-309397

Oceanographic data collected from the Henry Larsen in the Beaufort Sea, August-September 1990 / Macdonald, R.W. Carmack, E.C. McLaughlin, F.A. Sieberg, D. O'Brien, M.C. Paton, D. Pearson, R. Liangfeng, Y. Gobeil, C.

Sidney, B.C. : Institute of Ocean Sciences, 1991.

v, 142 p. : ill. (1 col.), maps ; 28 cm.

(Canadian data report of hydrography and ocean sciences, no. 97)

(NOGAP project no. B.06 : Beaufort Sea oceanography)

Appendices.

References.

ACU

A cruise to the southern Beaufort Sea was carried out from the Henry Larsen in August-September, 1990. Here we report the bottle data for measurements of salinity, temperature, nutrients (silicate, phosphate and nitrate), dissolved oxygen and chlorophyll a determinations, and the CTD data. (Au)

D-309427

Seasonal salinity, temperature and density data for Tuktoyaktuk Harbour and Mason Bay, N.W.T., 1980 to 1988 / Hopky, G.E. Chiperzak, D.B. Lawrence, M.J. de March, L. Freshwater Institute (Canada).

Winnipeg, Man. : Freshwater Institute (Canada), 1990.

v, 231 p. : ill., maps ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

(Canadian data report of fisheries and aquatic sciences, no. 801)

Appendices.

References.

This is the 48th Data Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.

MWFW, ACU

This report contains seasonal salinity, temperature and density (CTD) data collected from 1980 to 1988 in two embayments – Tuktoyaktuk Harbour and Mason Bay – along the south east Beaufort Sea coast. Sampling during the ice cover period was usually conducted in March. Sampling was conducted more frequently throughout the open water period of June to September, but only in Tuktoyaktuk Harbour. Ice thickness and secchi depth values are also reported. (Au)

D-309451

NOGAP B.6 : volume 2 : Physical data collected in the Beaufort Sea, March-June 1987 / Macdonald, D.M. Cuypers, L.E. McCullough, D. Carmack, E. Macdonald, R.W. Institute of Ocean Sciences, Patricia Bay.

Sidney, B.C. : Institute of Ocean Sciences, 1988.

v, 157 p. : ill., maps ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

(Canadian data report of hydrography and ocean sciences, no. 60)

Appendix.

References.

OORD, BVIEM, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon and primary productivity of the waters overlying the Beaufort Shelf, we measured water properties (biological, chemical and physical) on a transect out from Tuktoyaktuk to the shelf break. These measurements were made from early spring (March) through to breakup (June). We report here the supporting physical oceanographic data, including temperature, salinity, light transmission and attenuation, density ... departure from freezing point, and dynamic height. Additional physical measurements were made in the near-shore zone to investigate the Mackenzie plume structure under ice; these data are also included here. (Au)

D-309460

NOGAP B.6 : volume 4 : Chemical data collected in the Beaufort Sea, summer, 1987 / Macdonald, R.W. Iseki, K. O'Brien, M.C. McLaughlin, F.A. McCullough, D. Macdonald, D.M. Carmack, E.C. Adams, H. Yunker, M. Miskulin, G. Buckingham, S. Institute of Ocean Sciences, Patricia Bay.

Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1988.

v, 103 p. : ill., maps ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

(Canadian data report of hydrography and ocean sciences, no. 60)

Appendices.

References.

BVIEM, OORD, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Mackenzie Shelf, we measured water properties (biological, chemical and physical) on several transects extending from inshore waters to the shelf break, and one deep station 3500 MO in the southwestern Canada Basin. The samples were collected from the C.S.C. John P. Tully during July – September, 1987. We report here the chemical measurements made on bottle samples; these include salinity, temperature, dissolved oxygen, phosphate, nitrate, reactive silicate, chlorophyll a, total suspended solids, and particulate organic carbon and nitrogen. (Au)

D-309478

NOGAP B.6 : volume 5 : Chemical data collected in the Beaufort Sea and Mackenzie River Delta, March-July 1987 / Macdonald, R.W. Iseki, K. O'Brien, M.C. McLaughlin, F.A. McCullough, D. Macdonald, D.M. Carmack, E.C. Yunker, M. Buckingham, S. Miskulin, G. Institute of Ocean Sciences, Patricia Bay.

Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1988.

v, 55 p. : ill. ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

(Canadian data report of hydrography and ocean sciences, no. 60)

Appendices.

References.

OORD, BVIEM, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Mackenzie Shelf, we measured water properties (biological, chemical and physical) on a transect out from Tuktoyaktuk to the shelf break. These measurements were made from early spring (March 1987) through to breakup (May 1987). We report here the chemical measurements made on water samples including salinity, dissolved oxygen, phosphate, nitrate, reactive silicate, chlorophyll a, total suspended solids, particulate organic carbon and nitrogen. Also included are the chemical measurements made on pumped samples collected during 2 trips to the Mackenzie River Delta in June and July, 1987. (Au)

D-309486

NOGAP B.6 : volume 6 : Physical data collected in the Beaufort Sea, summer, 1987 / Carmack, E. Papadakis, J.E. Macdonald, D.M. Macdonald, R.W. Institute of Ocean Sciences, Patricia Bay.

Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1989.

v, 219 p. : ill. ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

(Canadian data report of hydrography and ocean sciences, no. 60)

Appendices.

References.

BVIEM, YWA

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Beaufort Shelf, we measured water properties (biological, chemical and physical) across the shelf. These measurements were made during summer and complete a time series commencing in March, 1987. We report here the supporting physical oceanographic data, including temperature, salinity, light transmission and attenuation, density ... departure from freezing point, and dynamic height. (Au)

D-309494

NOGAP B.6 : volume 7 : Hydrocarbon determinations : Mackenzie River and Beaufort Sea shoreline peat samples / Yunker, M.B. McLaughlin, F.A. Fowler, B.R. Smyth, T.A. Cretney, W.J. Macdonald, R.W. McCullough, D. Institute of Ocean Sciences, Patricia Bay.

Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1990.

vi, 81 p. : ill., 1 map ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

(Canadian data report of hydrography and ocean sciences, no. 60)

Appendices.

References.

BVIEM, YWA, OORD, ACU

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Mackenzie Shelf, we collected hydrocarbon samples in the Mackenzie Delta, from the Beaufort Sea coast and from repeat sampling of several transects extending from inshore waters to the shelf break. This report describes in detail the methods used for the collection and analysis of hydrocarbon samples from the water, shoreline, sediment and atmosphere. It also provides complete results for the analysis of samples from the Mackenzie River Delta and the Beaufort Sea shoreline. (Au)

D-309508

Oceanographic data collected from the Sir John Franklin in the Beaufort Sea, September 1989 / Macdonald, R.W. Carmack, E.C. O'Brien, M.C. McLaughlin, F.A. Minkley, B. Berger-North, K. Institute of Ocean Sciences, Patricia Bay.

Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1990.

v, 100 p. : ill. (some col.) ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

(Canadian data report of hydrography and ocean sciences, no. 80)

Appendices.

References.

OORD, BVIEM, YWA

A cruise to the Southern Beaufort Sea was carried out from the CCGS Sir John Franklin in August – September, 1989. Here we report the bottle data including salinity, temperature, nutrients (silicate, phosphate and nitrate), dissolved oxygen and chlorophyll a determinations, and the CTD data. (Au)

D-309516

Sediment-storm interaction study : final report : NOGAP B.6 / Seaconsult Marine Research Ltd. Hodgins, D.O. Institute of Ocean Sciences, Patricia Bay [Sponsor].

Vancouver, B.C. : Seaconsult Marine Research Ltd., 1988.

vi, 94 leaves : ill., maps ; 28 cm.

(NOGAP project no. B.06 : Beaufort Sea oceanography)

Cover title.

Appendices.
References.
BVIEM, OORD

As part of the 1987 NOGAP B.6 program an instrument was developed to monitor storm-induced sediment resuspension and transport, together with synchronous changes in porewater pressure in surficial sediments. ... The purpose of this report is to document the instrumentation deployed at each site, discuss the calibration of the sensors, to present and discuss the measurements, and to examine models for predicting suspended sediment concentration distributions and sediment transport. (Au)

D-309524

Composition and modification of water masses in the Mackenzie shelf estuary / Macdonald, R.W. Carmack, E.C. McLaughlin, F.A. Iseki, K. Macdonald, D.M. O'Brien, M.C. Institute of Ocean Sciences, Patricia Bay.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Journal of geophysical research, v. 94, no. C12, Dec. 15, 1989, p.18057-18070, 1 leaf of plates, ill. (1 col.), 1 map)
References.
Contains a coloured plate on page 18,247.
BVIEM, OORD, ACU

The distribution of delta 18 O, salinity, temperature, and nutrients have been used to quantify water sources to the Mackenzie shelf in the Beaufort Sea. Comparison of water mass analyses with satellite imagery confirms that the meteoric (runoff) water is associated with the Mackenzie plume. The seasonally variable surface layer for the shelf is viewed as cycling between a "reverse estuary" in winter, when the polar mixed layer (PML) is formed, and a positive estuary in summer when the shelf waters respond to freshwater inputs (runoff and ice melt). We infer a standing stock of 3.7 m fresh water at the end of summer 1986, of which 30% owes its origin to the melting of sea ice; our data coupled with river flow imply a freshwater flushing time for the Mackenzie shelf at about 150 days. To re-form the PML during winter requires the removal of this seasonal fresh water through the combined processes of flushing and ice formation: once this fresh water has been removed, continued ice growth can produce "new" brine which would be observed as a deeper and saltier PML from the previous year. A simple geochemical model shows that autumn conditions (freshwater accumulation) and the rate of flushing are important controls on the potential of the shelf to produce "new" brine and that winter runoff, were it to distribute evenly across the shelf, is sufficient to inhibit brine production. (Au)

D-309532

Water mass structure and boundaries in the Mackenzie shelf estuary / Carmack, E.C. Macdonald, R.W. Papadakis, J.E. Institute of Ocean Sciences, Patricia Bay.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Journal of geophysical research, v. 94, no. C12, Dec. 15, 1989, p.18043-18055, 1 leaf of plates, ill. (1 col.), 1 map)
References.
Contains a coloured plate on page 18,245.
BVIEM, OORD, ACU

The Mackenzie shelf is a broad, estuarine region bordering the southeastern Beaufort Sea in the Arctic Ocean. Its fields of temperature and salinity result from the modification of offshore water masses by river inflow, ice melting and freezing, solar insolation, and air-sea exchange. We here relate water masses resident on the Mackenzie shelf to the large-scale oceanography of the Arctic mediterranean. The summertime exchange between the shelf and open ocean is largely confined to waters lying above the main halocline (S<32.2 psu), thus excluding underlying offshore waters from the nutrient maximum layer (S=33.1 psu) and Atlantic layer (S>34.2 psu). Cross-shelf property distributions show that individual water masses maintain their structural identity (i.e. core properties and buoyancy frequency) as they move across the shelf and participate in the estuarine circulation. Shelf waters are strongly influenced by river inflow; however, the concept of a single "plume" issuing from the incoming river and forming a strictly two-layered structure over uniform shelf water is misleading, since a variety of temperature, salinity, and turbidity fronts co-exist on the shelf at any given time. (Au)

D-309540

Geochemistry and fluxes of hydrocarbons to the Beaufort Sea shelf : a multivariate comparison of fluvial inputs and coastal erosion of peat using principal components analysis / Yunker, M.B. Macdonald, R.W. Fowler, B.R. Cretney, W.J. Dallimore, S.R. McLaughlin, F.A. Institute of Ocean Sciences, Patricia Bay.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Geochimica et cosmochimica acta, v. 55, no. 1, Jan. 1991, p. 255-273, ill., 1 map)
References.
ACU

The allochthonous inputs of hydrocarbon to the Canadian Beaufort Shelf were studied by applying principal components analysis (PCA) to well-validated and rigorously blank-corrected samples. Incorporation of a wide range of perdeuterated n-alkanes and PAH into the analysis scheme ensured that only reliably quantified variables were used to interpret the hydrocarbon geochemistry. Application of PCA to Mackenzie River samples demonstrated a homogeneous system, from which we infer coupling or equilibrium between the river articulate hydrocarbons and the dissolved fraction. Particulate (particle size >0.7 micro meters) hydrocarbon flux from the Mackenzie River is by far the most important terrestrially derived source of hydrocarbons to the Beaufort Sea. The Mackenzie River particulates have a distinct n-alkane signature which can be used to identify the riverine influence on the hydrocarbon geochemistry of the Beaufort Sea shelf. Based on one year's data, the flux of total alkanes is 440 +-94 tonne/a, and PAH is 49 +-8 tonne/a (uncertainties are one standard deviation of the sampling and analytical variation). The particulate flux exceeds the accompanying dissolved hydrocarbon flux by two orders of magnitude and has a strong seasonal cycle: winter contributes less than an estimated 0.6% of total annual flux. Deltaic silt from the western Mackenzie delta and the smaller amounts of detritus from coastal erosion of peat are minor hydrocarbon sources and contribute, in total, less than 10% to the budget for most alkanes. An important exception, with regard to shelf geochemistry, is the significant quantity of peat-derived higher plant n-alkanes. (Au)

D-309575

Wave hindcasting for extreme wave analysis in the Beaufort Sea : NOGAP B.8 : final report / Glenn, G. Canada. Dept. of Fisheries and Oceans.
[S.l.] : Canada. Dept. of Fisheries and Oceans, 1988.
[119] leaves : ill. ; 28 cm.
(NOGAP project no. B.08 : Beaufort Sea waves)
Appendices.
References.
OORD, BVIEM

This report is a study of the Beaufort Sea wave climate for the Northern Oil and Gas Action Program. Extreme waves were estimated using modeled wave data and the joint probabilities of storm and ice conditions. A shallow water wave model was developed. This was used to hindcast a set of past Beaufort storms. Scientific errors were estimated for each stage of these analyses. (Au)

D-309605

Beaufort Sea wave hindcast / Seaconsult Marine Research Ltd. Canada. Marine Environmental Data Service [Sponsor].
Vancouver, B.C. : Seaconsult Marine Research Ltd., 1988.
ca. 200 p. : ill., maps : 28 cm.

(NOGAP project no. B.08 : Beaufort Sea waves)
Appendices.
References.
OORD

This report analyzes the results of various wave models designed to predict wave conditions in the Beaufort Sea under a range of storm and other conditions. (ASTIS)

D-309745
NOGAP B.6 : volume 3 : Beaufort Sea current measurements, Sept. 1987-March 1988 / McCullough, D. Macdonald, R.W. Iseki, K. Carmack, E.
Institute of Ocean Sciences, Patricia Bay.
Sidney, B.C. : Institute of Ocean Sciences, Patricia Bay, 1988.
37 p. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Canadian data report of hydrography and ocean sciences, no. 60)
BVIEM, YWA, ACU, OORD

Four subsurface, tautline moorings were deployed in the summer of 1987 along the 200 m contour in the Beaufort Sea. Each mooring comprised a pair of current meters and a sequential sediment trap. One current meter was located as close to the surface as predicted ice keel depths would allow and the other was 50 m above the bottom in close association with the sediment trap. The moorings were recovered from the ice in March 1988. The measurements are summarized in this report. (Au)

D-309753
Measurement of natural trace dissolved hydrocarbons by in situ column extraction : an intercomparison of two adsorption resins / Yunker, M.B. McLaughlin, F.A. Macdonald, R.W. Cretney, W.J. Fowler, B.R. Smyth, T.A. Canada. Dept. of Fisheries and Oceans.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Analytical chemistry, v. 61, 1989, p.1333-1343)
Document not seen by ASTIS. Citation from NOGAP.
ACU

Chromosorb T and XAD-2 resins are compared for the in situ extraction of alkane and polycyclic aromatic hydrocarbons (PAHs) from fresh- and seawater. In column efficiency experiments, Chromosorb T yielded higher recoveries than XAD-2 for n-alkanes at 3 and 0.6 ng/L concentrations per component. Chromosorb T columns gave good recoveries for PAHs of three and more rings (0.4 ng/L per component) and XAD-2 for PAHs of four and more rings (0.06 ng/L per component). Lower molecular weight PAHs were recovered poorly by Chromosorb T and contaminated by XAD-2. Principal component analysis (PCA) discriminated well between Chromosorb T and XAD-2 dissolved hydrocarbon in situ samples and their respective blanks. The PCA models could also distinguish between the groups of samples collected with each resin. Between-resin difference was more important than sampling location for hydrocarbon composition; this difference in resin adsorption characteristics shows up dramatically in the mean sample and blank plots for the hydrocarbons. The majority of blank-corrected XAD-2 alkane concentrations were below the limit of detection. In contrast, the majority of the alkanes below triacontane were quantifiable for the samples on Chromosorb T. PAHs in the phenanthrene to chrysene range gave comparable results for the two resins. The Chromosorb T in situ methodology provides the first dissolved hydrocarbon measurements that are unquestionably above the measured mean blank. With this technique individual alkanes and PAHs at pg/L concentrations in natural waters can be quantified. (NOGAP)

D-309761
The role of large-scale under-ice topography in separating estuary and ocean on an arctic shelf / Macdonald, R.W. Carmack, E.C. Canada. Dept. of Fisheries and Oceans.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Atmosphere-ocean, v. 29, no. 1, 1991, p. 37-53)
Document not seen by ASTIS. Citation from NOGAP.

The Mackenzie Shelf in the Canadian Beaufort Sea receives large amounts of freshwater runoff in winter and, yet, it also produces ventilating water masses by brine rejection from growing ice. We examine physical and chemical data to see how these contradictory processes can occur juxtaposed on the shelf. Measurements of salinity and delta 18 O both from ice cores and the water column are used to infer the separation into two convective regimes due to the under-ice topography of the system of large pressure ridges that forms at the boundary between landfast ice and pack ice. Outside this ridge system the ice cover is subject to frequent openings due to offshore ice motion. The inner regime is thus dominated by the impoundment of Mackenzie River water, whereas the outer regime is subject to brine enhancement. This paper compares freezing processes and system evolution for these two regimes in winter. (NOGAP)

D-309770
Organic carbon and colloids in the Mackenzie River and Beaufort Sea / Whitehouse, B.G. Macdonald, R.W. Iseki, K. Yunker, M.B. McLaughlin, F.A.
Canada. Dept. of Fisheries and Oceans.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
(Marine chemistry, v. 26, 1989, p. 371-378)
Document not seen by ASTIS. Citation from NOGAP.

Photo-oxidation analysis of colloidal organic material from the Mackenzie River and Beaufort Sea indicates that organic colloids in riverine, brackish, and marine waters match organic particulate material in magnitude and distribution. Comparison with data obtained by CHN analysis of organic colloids >0.2 micro meters in size indicates that most of the riverine organic colloidal material resides in the <0.2 micro meters to low nm size range. The colloidal fraction is significant in the Mackenzie River, but does not play a major role in the mass balance of total organic carbon in the Mackenzie River and Beaufort Sea. We recognize recent controversy regarding the analysis of marine dissolved organic carbon and suggest that such controversy may not apply to data obtained from freshwater environments. (NOGAP)

D-309788
Organic carbon and fl hydrocarbons in the colloidal fraction : analysis of data obtained from the Mackenzie River and Beaufort Sea : final report / Whitehouse, B.G.
Institute of Ocean Sciences, Patricia Bay.
Halifax, N.S. : Dalhousie University, 1988.
iii, [75] leaves : ill. ; 28 cm.
(NOGAP project no. B.06 : Beaufort Sea oceanography)
Cover title.
Appendices.
References.
BVIEM, OORD

The purpose of this report is to present and synthesize available organic colloid data from the Mackenzie River and Beaufort Sea and relevant physical oceanographic data. (Au)

See also: B-308439, B-308668, B-308676, B-308684, B-308730, B-308757, B-308803, B-309664, G-308579, G-308587, G-308625.

E – METEOROLOGY AND CLIMATOLOGY

See: B-308684, B-308692, B-309664, D-308617, D-309575, D-309605.

F – SNOW, GLACIOLOGY, AND HYDROLOGY

See: B-308692, B-309664, D-309524, D-309540, D-309753, D-309761, D-309770, I-308480, I-308498, I-309559, I-309567, J-309680, X-308501.

G – ICE – Except Glacier Ice and Ground Ice.

G-308579

Effect of sea ice on Beaufort Sea coastal processes / Arctec Newfoundland Limited. Atlantic Geoscience Centre [Sponsor].

St. John's, Nfld. : Arctec Newfoundland Ltd., 1987.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Document not seen by ASTIS. Citation from NOGAP.

OOG

... This study has been conducted to investigate the significance of sea ice for Beaufort Sea shoreline processes and to identify critical information gaps to guide the planning of future research efforts. The study was conducted by reviewing available data on coastal morphology, sediment transport and sea ice to develop conceptual models for shore/ice interaction processes, and developing first approximation numerical estimates of their significance in the Canadian Beaufort. Assessments were then made of their potential significance for coastal development at King Point and North Head. ... At North Head, entrapment of sediment in or on the ice cover are the most likely processes, although it is believed that their effects on coastal development are minor. As the beach slope is very shallow, both ice incursions and wave energy in this environment are limited. It is believed that the predominant effect of sea ice here is to limit the duration of the open water season. At King Point, sea ice is more likely to affect coastal processes as the beach slope is steeper. Thus, ice incursions are more likely. On a local scale ice scour, ice push, and ice override may significantly rework the beach. On a regional scale, ice push has the potential to supply a significant volume of sediment to the littoral zone. Table 1 summarizes the results of the general assessments which were made. Table 2 summarizes the information gaps at present which are considered most critical. Field reconnaissance surveys at break-up and field beach profile surveys are recommended to investigate ice push. Efforts to build up a historical database on sea ice-related shoreline processes should continue. Physical model studies are recommended to assess the effects of specific engineering developments on these processes. (These projects are described in detail in Section 8). (Au)

G-308587

Aerial reconnaissance survey of ice break-up processes in the Canadian Beaufort Sea coastal zone / Dickins (D.F.) Associates Ltd. Atlantic Geoscience Centre [Sponsor].

Vancouver, B.C. : DF Dickins Associates Ltd., 1987.

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

The study produced a slide set and a video of the entire Beaufort Sea coastline.

Document not seen by ASTIS. Citation from NOGAP.

OOG

This report describes a 22 day field program carried out in the Canadian Beaufort Sea from May 31 to June 21, 1987. The field studies concentrated on the documentation of specific features of nearshore ice which play a role in coastal sediment transport in the study area. Regular visits to selected sites were carried out on regional aerial surveys from the US/Canada border to Cape Dalhousie. The study produced a comprehensive slide set together with video coverage of the entire Beaufort Sea coastline. Severe pile-up features, up to 12.5 m in elevation, were surveyed in 4 to 10 m of water off Atkinson Spit, in McKinley Bay, and west of Hershel Island along Nunaluk Spit. Strudel scour features were documented off the Babbage River delta in Phillips Bay. The maximum strudel scour pit depth was 2 m. This is the first known confirmation of strudel scour along the Canadian Beaufort Sea coast. Areas of ice overflow were mapped in the vicinity of Garry and Ellice Islands and off the deltas of the Blow River (Trent Bay), Babbage River, Running River, and Firth River. The landfast ice was unusually smooth throughout the study area. There was no evidence in 1987 of significant ice-sediment interaction at any of the sites of interest for future development (King Point, North Head, Pullen Island, and Toker Point). These observations are not necessarily representative of typical conditions. We recommend carrying out additional surveys to establish the annual variation and extent of ice-sediment reworking at specific sites and to conduct detailed mapping of strudel scour. Follow-up side-scan surveys are required to determine whether severe ice pile-up features cause long lasting scour in the nearshore area inside of the 10 m isobath. NOAA satellite images provide a valuable record of the extent of ice overflooding in previous years. We recommend using these images to relate ice overflooding and river discharge characteristics for particular years. (Au)

G-308625

L'influence de la glace de mer sur l'erosion littorale en mer de Beaufort Canadienne [The effect of sea ice on coastal erosion in the Canadian Beaufort Sea] / Universite de Bretagne Occidentale. Dep. de Geographie. Hequette, A. Canada. Geological Survey [Sponsor].

[S.l. : s.n., 198-?].

1 v.

(NOGAP project no. D.01 : Coastal zone geotechnics, Beaufort Sea)

Text in French.

Document not seen by ASTIS. Citation from NOGAP.

OOG

The Canadian Beaufort Sea coast consists primarily of unconsolidated cliffs in which segregation ground ice may occur in variable proportions. Although the Beaufort Sea is ice-free during only three months of an average year, the coast is undergoing regional retreat with local erosion rates as high as 10 m/a or more. Coastal retreat can not be explained solely by wave-induced and subaerial processes, but also by sea-ice related processes. The study of the bathymetry changes since 1971 at a site along the southeastern Beaufort Sea coast has revealed significant erosion (up to 1 m) in 12 to 15 m water depths. This deepening of the submarine profile is essentially caused by sea-ice gouging of the seabed as shown by sidescan sonar records. The coastal retreat is partly explained by the erosion of the subaqueous profile by sea ice processes. In opposition to a generally received opinion, sea ice has not only a protective effect on Arctic coasts by restricting wave energy, but also contributes significantly to their erosion. (Au)

See also: A-308714, B-308722, B-308765, B-308811, B-309664, D-308595, D-309427, D-309451, D-309460, D-309478, D-309486, D-309494, D-309575, D-309605, D-309745, D-309761, J-309680.

H – BOTANY

See: D-309532, U-309320, X-308501, X-309389.

I – ZOOLOGY

I-203815

Assessment of the value of stratified sampling for aerial surveys : a case study of bowhead whales in the Beaufort Sea / Ian Robertson Consulting Ltd. Robertson, E.O. Robertson, I. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : Dept. of Fisheries and Oceans, Central and Arctic Region, 1987.

iv, 28 p. : maps ; 28 cm.

(Canadian technical report of fisheries and aquatic sciences, no. 1500)

(NOGAP project no. B.01 : Effects of vessel noise and traffic on arctic marine mammals)

Appendices.

References.

ACU

The results of the 1981-1984 monitoring surveys of bowhead whales (Balaena mysticetus) in the Beaufort Sea were re-analyzed to assess the feasibility of future stratified sampling. Within a study area bounded by 72 degrees N, the Beaufort Sea coast, 128 degrees W and 141 degrees W, the original whale observation data were used to assign sightings to 130 subareas of equal area. Cluster analysis was chosen as the method of investigating the location, dimensions, and stability of the density pattern of whale sightings. Variance in annual abundance prompted the transformation of the subarea density data to ranks, and the cluster analysis was undertaken using a contiguity constraint. This meant only adjacent areas could be. ... Population estimates correspond closely with those reported in the annual monitoring reports. These estimates confirm that in 1983 and 1984 lower numbers of bowhead whales used the area established in this study. The population estimates presented here are qualified by an estimate of variance, which is recommended as a minimum requirement for population monitoring studies. The study also recommended that bowhead whale surveys should continue to be flown in evenly-spaced sequential strip transects, but that the data be regrouped by location into approximately square subareas for density analysis. (Au)

I-204188

Physical characteristics, terrain associations and soil properties of arctic fox (Alopex lagopus) dens in northern Yukon Territory, Canada : final report / Yukon Territory. Fish & Wildlife Branch. Smits, C.M.M. Slough, B.G. Land Resource Research Institute (Canada). Smith, C.A.S. Yukon Territory. Dept. of Renewable Resources [Sponsor].

[Whitehorse, Y.T. : Dept. of Renewable Resources], 1987.

v, 27 p. : ill., map ; 28 cm.

(NOGAP project no. G.15 : Economic harvest potential and management of arctic fox in Yukon)

Two folded maps in envelope.

Appendix.

References.

ACU

Physical and soil characteristics of arctic fox (Alopex lagopus) dens on Herschel Island and the Yukon Coastal Plain, Yukon Territory, Canada are described. Additionally, their distribution (n=42) is related to terrain map units within the study area. Dens are generally associated with warm and well drained landscape positions. Burrow entrances are significantly oriented toward the south ($p<0.0025$). Soils of dens are coarse textured and well drained. Mean depth to permafrost under the den (172 cm) is greater ($p<0.02$) than at adjacent sites (44 cm). Certain unique soil profile characteristics, particularly the replacement of common cryoturbation features with those of zooturbation and the formation of humus rich surface horizons, appear to be the result by denning activities by foxes. Observed differences in soil temperature and depth to permafrost between den site soils and adjacent soils have likely been caused, at least in part, by denning activities. Den distribution is evaluated using an 1:25,000 ecological (soil and vegetation) map of Herschel Island and a 1:125,000 map of surficial deposits and landforms of Yukon Coastal Plain. ... (Au)

I-293555

Arctic data compilation and appraisal : Volume 19 : Northwest Passage : Biological oceanography – pinnipeds 1834 to 1985 / Hardwood, L.A. PN Research Projects. Norton, P. Freshwater Institute (Canada). de March, L. Institute of Ocean Sciences, Patricia Bay. Smiley, B.D. Canada. Dept. of Fisheries and Oceans [Sponsor].

[Winnipeg, Man. : Freshwater Institute], 1988.

8 microfiches : ill., maps ; 11 x 16 cm.

(Canadian data report of hydrography and ocean sciences, no. 5)

(NOGAP project no. B.12 : DFO participation in MEMP and BEMP)

Also available on paper.

Appendix.

References.

ACU

This data report includes a catalogue of measurements made on pinnipeds (seals and walruses) in the Northwest Passage region and adjacent marine waters. In total, 159 studies were catalogued, spanning the period from 1834 to and including 1985. The catalogue comprises three main tables followed by supporting figures and indices. The tabulations include the following: general study parameters, species, specific measurements, concurrent biological, chemical, and physical measurements, details on sampling intensity and study methods, appraisal of study methods, and specific times and locations where sampling was conducted. More than 70% of the studies in the catalogue were conducted between 1970 and 1985, and approximately 40% of the data sets included Barrow Strait and/or Lancaster Sound within study area boundaries. Thirteen different study methods were identified, and these were used to make 124 different types of measurements. The most common methods were shore watches and reconnaissance surveys from the air and ice. The species most commonly studied were ringed seals, bearded seals, and walrus; hooded seals and harp seals were reported at certain times of the year. (Au)

I-299529

Spring sightings of narwhal and beluga calves in Lancaster Sound, N.W.T. / Cosens, S.E. Dueck, L.P. Canada. Dept. of Fisheries and Oceans.

(Arctic, v. 43, no. 2, June 1990, p. 127-128, 1 map)

(NOGAP project no. B.01 : Effects of vessel noise and traffic on arctic marine mammals)

References.

ACU

During aerial surveys in 1986 of whales migrating in Lancaster Sound, we observed newborn narwhals as early as 27 May and regularly thereafter. Beluga calves were first seen on 31 May and were seen sporadically throughout the study period. These observations represent the earliest reported sightings to date of newborn narwhals. (Au)

I-308480

Studies to determine whether the condition of fish from the lower Mackenzie River is related to hydrocarbon exposure / Lockhart, W.L. Metner, D.A. Murray, D.A.J. Danell, R.W. Billeck, B.N. Baron, C.L. Muir, D.C.G. Chang-Kue, K. Canada. Dept. of Indian Affairs and Northern Development.

Ottawa : Canada. Dept. of Indian Affairs and Northern Development, 1989.

vii, 84 p. : col. ill., maps ; 28 cm.

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 61)

ISBN 0-662-16849-6.

References.

OORD

This report was produced in response to complaints from northern people, principally residents of Fort Good Hope, that the quality of fish from the Mackenzie River had deteriorated. The liver of burbot was reported to have become small and dark in colour, with the result that people would no longer eat them. The muscle of whitefish was reported to have become excessively "watery" with the result that these fish were less palatable than in the past. Since the incidence of these complaints was coincident with operations to expand oil production at Norman Wells, this investigation was focused on the question of whether pollution from Norman Wells (oil) could be responsible for the deterioration in the quality of the fish. (Au)

I-308498

Patterns and trends in the domestic fishery in and near the Mackenzie River watershed : A synthesis of a survey of fish users in Dene and Metis communities / Rawson Academy of Aquatic Science. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].

Ottawa : Canada. Dept. of Indian Affairs and Northern Development, 1990.

xiii, 81 p. : ill., 1 map ; 28 cm.

(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)

(Environmental studies – Canada. Dept. of Indian Affairs and Northern Development, no. 66)

ISBN 0-662-18104-2.

References.

OORD

During construction of the Norman Wells pipeline (1982-85), concern was raised by domestic fishermen about the quality of fish caught in the Mackenzie River, N.W.T. Fishermen reported catching fish with external lesions and internal abnormalities which raised questions about the safety of this traditional food supply. As one of several federally initiated studies to investigate the causes and impacts of fish abnormalities, DIAND initiated the present study to assess the state of domestic fisheries and examine the potential socio-economic impacts of the fish abnormalities. (Au)

I-309419

A collection of Amphipoda from the southern Beaufort Sea / Keast, M.A. [Editor]. Lawrence, M.J. [Editor]. Freshwater Institute (Canada).

Winnipeg, Man. : Freshwater Institute (Canada), 1990.

vi, 114 p. : ill. ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

(Canadian data report of fisheries and aquatic sciences, no. 799)

Appendices.

References.

Glossaries.

This is the 46th Data Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.

MWFW, ACU

This report provides descriptions, with drawings, of benthic and pelagic amphipods of two suborders (Hyperiidea and Gammaridea). The amphipods came from collections made by DFO in the coastal waters of the southern Beaufort Sea. (Au)

I-309435

A guide to identification of Decapoda, Euphausiacea, and Mysidacea from the southern Beaufort Sea / Keast, M.A. [Editor]. Lawrence, M.J. [Editor]. Freshwater Institute (Canada).

Winnipeg, Man. : Freshwater Institute (Canada), 1990.

v, 61 p. : ill. ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

(Canadian manuscript report of fisheries and aquatic sciences, no. 2047)

Appendix.

References.

Glossary.

This is the 13th Manuscript Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.

MWFW, ACU

Presented is a guide to three eumalacostracan orders, (Decapoda, Euphausiacea and Mysidacea), from the southern Beaufort Sea, and its coastal embayments. The guide subdivided into order, family, genus and species is artificial and dichotomous in design. Illustrations, references and species descriptions are included. (Au)

I-309443

A guide to identification of benthic Isopoda from the southern Beaufort Sea / Lawrence, M.J. Keast, M.A. Freshwater Institute (Canada).

Winnipeg, Man. : Freshwater Institute (Canada), 1990.

v, 76 p. : ill. ; 28 cm.

(NOGAP project no. B.02 : Critical estuarine and marine habitats of the Canadian arctic coastal shelf)

(Canadian manuscript report of fisheries and aquatic sciences, no. 2048)

References.

Glossary.

This is the 12th Manuscript Report from the Dept. of Fisheries and Oceans, Central and Arctic Region, Freshwater Institute, Winnipeg.

MWFW, ACU

A guide to sixteen species of benthic isopods from the southern Beaufort Sea, including its coastal embayments is presented. Four suborders, the Asellota, Gnathiidea, Valvifera, and Epicaridea are discussed. The guide, subdivided into suborder, family, and species, is artificial and dichotomous in design. Illustrations, references, and species descriptions are included. (Au)

I-309559

Fish and fisheries of the Mackenzie and Churchill River basins, northern Canada / Bodaly, R.Z. Reist, J.D. Rosenberg, D.M. McCart, P.J. Hecky, R.E. Freshwater Institute (Canada).

(NOGAP project no. B.03 : Critical western arctic freshwater habitats)

(Proceedings of the International Large River Symposium / Edited by D.P. Dodge. – [S.l. : s.n.], 1989, p. 128-144, ill., maps)

References.

OORD

The Mackenzie and Churchill rivers drain 18,000,000 sq km and 300,000 sq km, respectively, of subarctic and arctic Canada. Mean annual precipitation in the basins is low, usually <500 mm. The ice-free season lasts for approximately 4-8 months. Low rates of phytoplankton primary production (<4-80 g C/m/yr) are due to light limitation caused by high suspended sediment loads, by the long period of ice and snow cover, and by low nutrient levels (e.g. total dissolved P 0.2-2.3 micro meters/L). Knowledge of secondary productivity is limited mainly to commercial fish yields. The fish faunas of the Mackenzie and Churchill basins are relatively simple: 53 species are native to the Mackenzie and 39 to the Churchill. The faunas are dominated by salmonids and cyprinids. Migratory behavior is characteristic of many of the fish species of importance to fisheries, especially in the Mackenzie basin, where it is often associated with one of the three major delta areas in the basin. Commercial and subsistence fisheries coexist throughout much of both river basins, but most commercial fishing takes place in the Churchill basin and the southern portions of the Mackenzie basin, near to southern Canadian and export markets. Fisheries management activities in the basins are often hampered by a number of factors. The magnitude of the catch for many commercial and most domestic fisheries is unknown and knowledge of the genetic population structure of species under exploitation is inadequate. Although high standing stocks of large fish are often present, they usually have relatively low rates of biological production. Migratory behaviour tends to concentrate fish temporally and spatially, making such populations vulnerable to multiple stresses, including fisheries, during their life cycles. Although only a moderate amount of industrial activity has taken place in the Mackenzie and Churchill basins, there has been extensive disruption of aquatic systems in the Churchill basin by hydroelectric development. Hydroelectric development will be increasingly important in the future in the Mackenzie basin. (Au)

I-309567

Life history characteristics of migratory coregonids of the lower Mackenzie River, Northwest Territories, Canada / Reist, J.D. Bond, W.A. Freshwater Institute (Canada).

(NOGAP project no. B.03 : Critical western arctic freshwater habitats)

(Finnish fisheries research, no. 9, 1988, p. 133-144, ill., maps)

References.

Five coregonid species occurring in the lower Mackenzie River Basin, Northwest Territories, Canada, are important in fisheries: Coregonus nasus (broad whitefish), C. clupeaformis complex (lake whitefish), C. sardinella complex (least cisco), C. autumnalis (Arctic cisco), and Stenodus leucichtys (inconnu). The degree of anadromy, length of migration and other life history traits differ among the species complicating management of them. Management problems include: (1) international implications resulting from migrations; (2) competing resource users fishing the same species at different locations; (3) intense localized impacts (fisheries and industrial) on migratory riverine populations passing through geographically restricted corridors; (4) several life history types present with unknown contribution to the impacted population(s); and, (5) population structuring into distinct genetic stocks that exhibit different life-history patterns and use different habitats. (Au)

I-309583

The abundance of narwhal (Monodon monoceros L.) in Admiralty Inlet, Northwest Territories, Canada, and implications of behaviour for survey estimates / Dueck, L.P. Canada. Dept. of Fisheries and Oceans [Sponsor].

Winnipeg, Man. : University of Manitoba, 1989.

81 p.

(NOGAP project no. B.01 : Effects of vessel noise and traffic on arctic marine mammals)

Thesis (M.Sc.) – University of Manitoba, Winnipeg, Man., 1989.

Document not seen by ASTIS. Citation from NOGAP.

MWU

The diving behavior of narwhal (Monodon monoceros) in Admiralty Inlet, Northwest Territories was investigated using scan and focal-animal sampling techniques in order to determine the proportion of narwhal out-of-sight during aerial photographic surveys. Observations were conducted between late June and early July in 1983 to 1985 from shore and ice-based sites and during helicopter flights. Three categories of behavior were used: directional movement, surface activity, and deep dives. Directional movement was most frequently observed during pre-breakup, early-breakup, and open water periods, followed by surface activities and deep dives. During late-breakup, surface activities were most frequent. The behavior of narwhal was highly variable as indicated by significant differences in the frequency of all three behavioral categories between periods of breakup, observation sites, times of day, and tide categories. There was no significant difference in mean surface time between pre-breakup, late-breakup and open water periods (mean=121 sec, S.D.=118 sec, n=236), although surface time during early-breakup (mean=182 sec, S.D.=269 sec, n=159) was significantly greater than all other periods. There was no significant difference in mean deep dive time between pre-breakup and early-breakup periods (mean=195 sec, S.D.=165 sec, n=25) but no deep dives were timed during late-breakup and only one (195 sec) was timed during the open water period. There were significant differences in both mean surface time and deep dive between observation sites for the early-breakup period, possibly reflecting the constraints of movement through different ice conditions. The estimated proportion of narwhal visible, based on mean surface and deep dive durations was 38% for pre-breakup, late-breakup and open water periods and 48% for early-breakup. The range in proportion of animals visible based on 95% confidence intervals of surface and deep dive times was 0.29 to 0.52 for pre-breakup, late-breakup and open water periods and 0.34 to 0.64 for early-breakup. The abundance of narwhal in Admiralty Inlet during the open water period in 1983-1985 was investigated with aerial photography using a systematic transect sampling design. The estimated number of narwhal visible at the surface was 2306 (95% C.I. of 1244-4277) in 1983, 5220 (95% C.I. of 3104-8780) in 1984, and 5619 (95% C.I. of 2819-11,200) in 1985. Important areas of distribution appeared to be the west side of Admiralty Inlet between Strathcona Sound and Yeoman Island and the mouths of Adams and Strathcona Sound. The increase in estimates each year corresponded with earlier breakup of ice in Lancaster Sound although differences in survey coverage may be partially responsible for observed differences in estimated numbers. Based on the estimated proportion of narwhal visible during the open water period, a correction factor of 1.9 to 3.4 is indicated, suggesting that estimated numbers should be at least doubled to account for animals out-of-sight. Caution in the use of this factor is recommended however, because of the potential biases involved in behavioral observations. (Au)

I-309613
Non-consumptive wildlife use on the Yukon north slope / Talarico, D. Mossop, D. Yukon Territory. Dept. of Renewable Resources.
[Whitehorse, Y.T.] : Dept. of Renewable Resources, 1988.
1 v.
(NOGAP project no. G.10 : Herschel Island Territorial Park planning)
References.
Contents: Part 1: The effects of wildlife viewing: tourism and birds in Herschel Island Territorial Park / D. Talarico, D. Mossop – Part 2: Bird watching enterprise: pilot trip on Yukon North Slope / D. Mossop and D. Talarico.
Document not seen by ASTIS. Citation from NOGAP.
YWA, OORD

This report examines the effects of wildlife viewing: Tourism and Birds in Herschel Island Territorial park and Bird Watching enterprise: pilot trip on Yukon North Slope. (NOGAP)

I-309630
Raptor population inventory and management planning (north slope) : Interim report / Mossop, D. Ward, R. Talarico, D. Yukon Territory. Fish & Wildlife Branch.
[Whitehorse, Y.T.] : Yukon Territory, Fish & Wildlife Branch, 1986.
[26] p. ; 28 cm.
(NOGAP project no. G.17 : Raptor management plan for the Yukon north slope)
YWA, OORD

Initial inventory and planning for the management of raptors on the Yukon North Slope has been an ongoing project since the early 1970's. In the interim, much of the area drained by streams of the Beaufort Sea have been covered in initial intensive surveys (see Platt 1975; Mossop and Hayes 1976, 1977, 1978, 1979, 1980). As well, various management options have been investigated including reintroduction of an extirpated species (see Peregrine Falcon Recovery project, this report) and harvest of the gyrfalcon, primarily for commercial reasons (Mossop and Hayes, 1981). The remaining task has been to complete the inventory but more importantly, to draw together all the work that has been done into a comprehensive analysis of raptor populations and an overall management plan for the future of these birds. A grant from Northern Oil and Gas action Program (NOGAP), a federal/territorial funding agreement has made the present task possible. Difficult accessibility of the Yukon North Slope has been the factor limiting human use in the area. With the development of the North Yukon National Park and the Herschel Island Territorial Park, more human activity is expected in the North Slope area. Other options for this area include wilderness tourism, industrial site development and corridor transportation development. In the near future, activities associated with the oil and gas industry (both exploration and production) are the most likely industrial developments to occur. Although management planning recognizes all North Slope activities, it has prioritized petroleum development activities as its main concern. (Au)

I-309699
Computer simulation models of the Porcupine caribou herd : I. energy / Kremsater, L.L. Hovey, F.W. Russell, D.E. White, R.G. Bunnell, F.L. Martel, A.M. Canadian Wildlife Service. Pacific and Yukon Region [Sponsor].
[S.l.] : Canadian Wildlife Service, Pacific and Yukon region, 1989.
[57] leaves : ill. ; 28 cm.
(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)
(NOGAP project no. C.09 : Porcupine caribou summer range)
(Canadian Wildlife Service. Pacific and Yukon Region. Technical report series, no. 53)
Appendices.
References.
Partial contents: PC simulator : version 2.0 / F.W. Hovey.
OORD, NWYEEP, OOF

Research and monitoring of the Porcupine caribou herd have been conducted almost continuously since the early 1970's. As more information is gathered it becomes increasingly difficult to integrate and apply that information to complex questions regarding effects on the herd from human activities and developments. The Porcupine Caribou Technical Committee, therefore, requested that individuals involved in research and management of the herd develop computer simulation models to aid in evaluating the present data, to help guide future research, and to provide some insights into the potential impact of alternate development scenarios. To this end the Canadian Wildlife Service contracted a group from the Faculty of Forestry, University of British Columbia, to help facilitate a number of workshops and to program the agreed upon models. From these discussions, three models were proposed. By order of increasing iteration time these models are: an Energy model which simulates the energic relations of an individual and predicts the metabolizable energy intake (MEI) on a daily basis; a growth model that incorporates the resultant MEI and projects the weight gain and loss throughout the year; and a harvest model that simulates the demographics of the herd over a number of years. The models incorporate a simulation supervisor program that was adapted to microcomputers (Microsimcon), allowing efficient and user-friendly access while exercising the models. All coding is done in Basic using a "Quick Basic" compiler. All users of the models will require an IBM compatible computer with graphics capability. This publication represents Version 1 of the models. Updates, executable files and other information on the model are available from D.E. Russell, Canadian Wildlife Service, Whitehorse. (Au)

I-309702
Computer simulation models of the Porcupine caribou herd : II. growth / Hovey, F.W. Kremsater, L.L. White, R.G. Russell, D.E. Bunnell, F.L. Canadian Wildlife Service. Pacific and Yukon Region [Sponsor].
Whitehorse, Y.T. : Canadian Wildlife Service, 1989.
[34] leaves : ill. ; 28 cm.
(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)
(NOGAP project no. C.09 : Porcupine caribou summer range)
(Canadian Wildlife Service. Pacific and Yukon Region. Technical report series, no. 54)
ISBN 0-662-16693-0.
Appendices.
References.
Partial contents: PC simulator, version 2.0 / F.W. Hovey.
OORD, NWYEEP, OOF

The growth of an individual caribou is simulated on a daily time period over 15 life cycle periods of the Porcupine caribou herd. In this model input variables (metabolizable energy intake [from energy model], activity budgets, snow depths, etc.) are incorporated to simulate the growth of a female and her calf. The present model is one of three models, energy, growth and harvest, that were developed at the request of the Porcupine Caribou Technical Committee. The models run on IBM compatible microcomputers that have graphics capability. The supervisor program, Microsimcon, is incorporated into each model to assist in exercising the models. (Au)

I-309710
Computer simulation models of the Porcupine caribou herd : III. harvest / Hovey, F.W. Russell, D.E. Bunnell, F.L. Farnell, R. Whitten, K.R. Canadian Wildlife Service [Sponsor].

[S.l.] : Canadian Wildlife Service, 1989.
[20] leaves : ill. ; 28 cm.
(NOGAP project no. A.13 : Impacts of oil and gas-related activities on caribou)
(NOGAP project no. C.09 : Porcupine caribou summer range)
(Canadian Wildlife Service. Pacific and Yukon Region. Technical report series, no. 55)
ISBN 0-662-16694-9.
Appendices.
References.
Partial contents: PC simulator, version 2.0 / F.W. Hovey.
OORD, OOFF, NWYEEP

The population dynamics of the Porcupine caribou herd are presented within the structure of a computer simulation model. Population parameters are updated on an annual basis while the dynamics within the model occur over five life cycle periods. The details and dynamics of community harvests on the herd are particularly stressed. The present model is one of three models, energy, growth and harvest, that were developed at the request of the Porcupine Caribou Technical Committee. The models run on IBM compatible microcomputers that have graphics capability. The supervisor program, Microsimcon, is incorporated into each model to assist in exercising the models. (Au)

See also: U-299707, U-308838, U-308889, U-308943, U-308951, U-309087, U-309109, U-309133, U-309184, U-309206, U-309214, U-309273, U-309281, U-309320, U-309338, U-309346, U-309354, U-309370, U-309648, X-308501, X-309389.

J – ECOLOGY – Includes Environmental Protection.

J-309680
NOGAP programs for IWD in the 1990's : project design summary, Oct. 23-24 workshop proceedings, strategic planning document / Northwind Consultants. Wedel, J.H. Canada. Inland Waters Directorate [Sponsor]. Canada. Environment Canada [Sponsor].
Winnipeg, Man. : Northwind Consultants, 1990.
26, 11, 23 p. ; 28 cm.
(NOGAP project no. C.05 : Environmental monitoring and assessment)
Appendices.
References.
Contents: Project design summary – Proceedings : IWD Strategies Workshop for NOGAP programs in the 1990's – Sediment regime of the Mackenzie Delta : position paper prepared for Workshop on NOGAP programs for IWD-Yellowknife / M.A. Carson and Associates – Inland Waters Directorate's Northern Oil and Gas Action Program for the 1990's : a strategic planning document.
OORD, OOFF, AEEPS, ACU

[Two brief statements about the project design summary and the workshop called by IWD Yellowknife have been extracted from the author's introduction to these subjects]. (1) Project design summary: This document pulls together an array of commentary derived from the IWD strategy paper, from the Carson position paper dealing with the delta sediment regime, and from the proceedings of the IWD, NOGAP workshop held in Yellowknife on October 23 and 24, 1990. The comments which follow are considered to be 'guiding principles' and are used to develop project outlines, NOGAP justifications, and inter-agency linkages in later sections of this summary. ... (2) [IWD strategies Workshop for NOGAP programs in the 1990's held in October 23 and 24, 1990 in Yellowknife, N.W.T.] ... The workshop was called by IWD Yellowknife to review the NOGAP strategic planning document prepared by Northwind Consultants, Winnipeg, and by Carson and Associates, Victoria. Specific workshop focus was on the technical competence of proposed avenues of research, their relevance to NOGAP, and on the concept of work-sharing between IWD and other government agencies. Representatives from EMR, DFO, the Inuvialuit, and the oil and gas industry were unable to attend. Both EMR and industry are keenly interested in the proposed IWD program however, and submitted briefs which are included in this summary. ... (Au)

See also: D-309540, I-308480, I-308498, I-309559, I-309630, S-309621, T-309400, U-309257, U-309273, X-308501, X-309389.

L – COMMUNICATIONS AND TRANSPORTATION

See: R-309672.

M – ENGINEERING AND CONSTRUCTION

See: B-308412.

N – RENEWABLE RESOURCES

See: I-309559, I-309613, I-309710, V-309656.

Q – PETROLEUM, NATURAL GAS, AND PIPELINES

Q-308510
Permafrost and terrain monitoring, Norman Wells Pipeline / MacInnes, K.L. Burgess, M.M. Harry, D.G. Baker, T.H.W. Canada. Dept. of Indian Affairs and Northern Development.
[S.l. : s.n.], 1989-1990.
2 v. (131 p.; 204 p.).
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
(Northern Affairs environmental studies report, no. 64)

ISBN 0-662-17529-8.
Contents: v. 1. Environmental and engineering considerations – v. 2. Research and monitoring results 1983-88.
Document not seen by ASTIS. Citation from NOGAP.
OORD

The IPL (NW) Norman Wells pipeline is a 869 KM long 324 mm diameter buried oil pipeline from Norman Wells, N.W.T. to Zama, Alberta. New approaches were used in its design and for the mitigation of environmental impact, especially in relation to the soils of the discontinuous permafrost zone. Volume one of this two volume report describes design concepts and mitigative approaches used in the construction and operation of the pipeline and the environmental conditions which have influenced these considerations. The project, regulatory requirements and the goals of the Permafrost and Terrain Monitoring Programme are also described along with a comparison to other northern pipelines constructed on permafrost soils. Volume two covers research and monitoring. Instrumentation and the monitoring of ground temperatures, pipe temperatures, thaw depths and ground settlement are described. Observations are compared with design predictions. Overall terrain performance and the performance of wood chips for insulating thaw sensitive slopes are evaluated. A set of 38 recommendations provides advice on the research and monitoring process and requirements for further monitoring on the Norman Wells pipeline and for future northern pipelines. (NOGAP)

Q-308536
Permafrost and terrain preliminary monitoring results, Norman Wells pipeline, Canada / Burgess, M.M.
Canada. Dept. of Indian Affairs and Northern Development.
(Proceedings – International Conference on Permafrost, 5th, Trondheim, Norway, 1988, p. 196-921)
(NOGAP project no. A.17 : Surface and subsurface disturbances induced by oil and gas activities)
Document not seen by ASTIS. Citation from NOGAP.
OORD

The 869 km Norman Wells oil pipeline, owned by Interprovincial Pipe Line (NW) Ltd. (IPL) traverses the discontinuous permafrost zone of Northwestern Canada. Operation began in April 1985. Monitoring of the thermal regime at thirteen locations along the route forms a major component of a long term cooperative government-IPL permafrost and terrain research and monitoring program. Observations to the end of March 1987 indicate that mean annual pipe temperatures, range from 0 degrees C to 5 degrees C, both within the wide spread discontinuous permafrost terrain in the north and the sporadic discontinuous permafrost terrain in the south. Mean annual ground temperatures on the right-of-way (ROW) at 1 m depth, several metres from the trench, range from –2 degrees to +4 degrees C and are on average 1.5 degrees colder than mean annual pipe temperatures. Mean annual ground temperatures off-ROW at a depth of 1 m range from –3 degrees to +3 degrees C and are on average 1 degree colder than those on-ROW. Maximum surface settlement observed on the ROW at the sites has reached up to 80 cm outside the trench area, and over 100 cm in the vicinity of the trench. (NOGAP)

See also: B-308706, C-308528, C-308544, C-308552, C-308560, C-309729, D-309494, D-309753, I-308480, I-308498, I-309699, I-309702, I-309710, J-309680, R-309591, U-308854, U-309249, X-308501, X-309389.

R – GOVERNMENT, ECONOMIC CONDITIONS, AND SOCIAL CONDITIONS

R-309591
Beaufort socio-economic report / Northwest Territories. Energy, Mines and Resources Secretariat.
Yellowknife, N.W.T. : Energy, Mines and Resources Secretariat, 1988.
2, 27 p. : ill., maps ; 28 cm.
(NOGAP project no. H.08 : Socio-economic monitoring system, northern hydrocarbon development)
Volume 2 is bound with volume 1.
OORD

This pilot project report is part of a NOGAP (Northern Oil and Gas Action Program) project on socio-economic monitoring in Beaufort-Mackenzie Delta communities. Consequently, only the communities geographically located near the Beaufort are considered in this report. Other communities which benefit from industrial activity are not considered in this particular report. ... This report is divided into two volumes. ... The first volume is comprised of the Annual Report. This Annual Report has two sections: Section 1: Review of industrial activity, and Section 2: Review of community indicators. The second volume presents basic data in the form of Community Profiles. (Au)

R-309672
The directory of community groups : Inuvik and Kitikmeot regions / Sato, R. [Editor]. Northwest Territories. Dept. of Social Services.
Inuvik, N.W.T. : Northwest Territories. Dept. of Social Services, 1988.
343 p. : 1 map ; 28 cm.
(NOGAP project no. H.03 : Beaufort Delta social impact baseline data study)
Appendices.
OORD, NWYGI, ACU

The Beaufort Delta Social Impact Baseline Data Study is a research project working to assist in assessing the social and economical effects brought by the exploration of oil and gas in the Beaufort/Delta area with funding provided by the Northern Oil and Gas Action Program (NOGAP). (Au)

See also: J-309680, U-308404, U-309249, U-309257, X-309389.

S – LAND USE, LAND MANAGEMENT, AND REGIONAL PLANNING

S-309621
Herschel Island Territorial Park : draft management plan / Yukon Territory. Dept. of Renewable Resources.
[Whitehorse, Y.T.] : Dept. of Renewable Resources, 1989.
21 p. : maps ; 29 cm.
(NOGAP project no. G.10 : Herschel Island Territorial Park planning)
Cover title.
Appendices.

YWA, OORD

This report outlines the Government of Yukon's planned management of the Herschel Island Territorial Park. The plan has been prepared in accordance with the Western Arctic Land Claims Settlement Act and the Yukon Parks Act. (NOGAP)

See also: I-309613, I-309630, T-309400, U-309230, U-309273, X-309389.

T – NATIVE PEOPLES – Except Archæology.

T-309400

Qikiqtaruk (Herschel Island) cultural study : final report / Inuvialuit Social Development Program. Nagy, M. Yukon Territory. Heritage Branch [Sponsor]. Oral Traditions Program (NWT) [Sponsor]. Parks Canada [Sponsor]. Frontec [Sponsor]. Polar Continental Shelf Project (Canada) [Sponsor]. Inuvik Research Center [Sponsor].

Inuvik, N.W.T. : Inuvialuit Social Development Program, 1991.

iii, 71 p. : ill., 1 map ; 28 cm.

(NOGAP project no. G.18 : North coast heritage research and protection)

References.

YWA, OORD

The goal of the Herschel Island Cultural Study was to document Inuvialuit use and perceptions of Herschel Island for the purpose of developing an interpretive plan for the Herschel Island Territorial Park. This was accomplished by conducting personal interviews with aboriginal people of the area under study. Interviews were conducted in Aklavik prior to a field trip to Herschel Island. The collection of interviews took place between July 2 and July 29, 1990. The volume of the cultural study contains the transcripts of the interviews conducted. It represents the first phase of a three year North Slope cultural resources survey. (NOGAP)

See also: I-308498, I-309559, I-309710, R-309672, S-309621, U-309257.

U – ARCHÆOLOGY

U-299707

Caribou exploitation at the Trail River site, northern Yukon / Nagy, M.I. Yukon Territory. Heritage Branch.

[Whitehorse, Y.T.] : Yukon Tourism, Heritage Branch, 1990.

x, 157 p. : ill., maps ; 28 cm.

(Occasional papers in archaeology, no. 2)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Thesis (M.A.) – Simon Fraser University, Burnaby, B.C., 1988.

Bibliography: p. 140-157.

ACU

This thesis investigates a poorly-known aspect of the seasonal round of the late prehistoric Mackenzie Inuit, the late spring and summer caribou hunt, through the study of the Trail River site (NgVh 1) in the northern Yukon. Because the site is approximately 25 km from the Beaufort Sea and since coastal Mackenzie Inuit subsistence strategies were mainly oriented toward the exploitation of aquatic resources, it is important to understand why the Mackenzie Inuit used the site and how its use related to the rest of the seasonal round. ... (Au)

U-306495

Vihtr'iitshik : A stone quarry reported by Alexander Mackenzie on the lower Mackenzie River in 1789 / Pilon, J.-L. Archaeological Survey of Canada.

(Arctic, v. 43, no. 3, Sept. 1990, p. 251-261, ill., maps)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

References.

ACU

The analysis of archaeological specimens gathered in 1988 at the mouth of the Thunder River (MiTi-1), lower Mackenzie Valley, indicates that the locality's primary function was as a quarry/workshop. Historical and toponymic data show that this was likely the quarry identified by Alexander Mackenzie on 24 July 1789. Collections from the southwest Anderson Plain contain high proportions of Thunder River siliceous argillite, some obtained from beach gravels or till deposits, while some were obtained from primary geological deposits. In collections from peripheral areas, Thunder River siliceous argillite is occasionally found and often consists of the end-products of lithic reduction. It is especially interesting to confirm the presence of Thunder River siliceous argillite in Mackenzie Delta Inuit sites. A critical evaluation of all available data shows that Alexander Mackenzie's journal was relatively accurate with respect to this lithic source. (Au)

U-308404

NOGAP archaeology project : an integrated archaeological research and management approach / Cinq-Mars, J. [Editor]. Pilon, J.-L. [Editor]. Archaeological Survey of Canada.

Victoria, B.C. : Canadian Archaeological Association, 1991.

159 p. : ill., maps ; 28 cm.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Occasional paper – Canadian Archaeological Association, no. 1)

ISBN 0-9695202-0-4.

Contents: The NOGAP archaeology project : a brief introduction / J. Cinq-Mars and J-L. Pilon – Archaeological field training in the NOGAP area / C.D. Arnold and C.C. Hanks – The Trout Lake archaeological locality and the British Mountain problem / S.C. Greer – Engigstciak revisited : a note on early Holocene AMS dates from the "Buffalo Pit" / J. Cinq-Mars, C.R. Harington, D.E. Nelson, and R.S. MacNeish – Bone and antler tools from a late prehistoric Mackenzie Inuit site / M. Nagey – Geomorphology as an aid to mapping archaeological resources in NOGAP areas / V.N. Rampton – New data relating to the prehistory of the Mackenzie Delta region of the NOGAP study area / R. J. Le Blanc – The later prehistory of Amundsen Gulf / L.A. Morrison – Insights into the prehistory of the lower Mackenzie Valley, Anderson Plain region, Northwest Territories / J-L. Pilon – The basket case : deciphering subsistence patterns in the southwest Anderson Plain region, N.W.T., in the late prehistoric period / L. Still – Archaeological site distributions on the south

coast of Devon Island, High Arctic Canada / P.D. Sutherland – Accelerator radiocarbon dates from the NOGAP archaeology project / J.S. Vogel, T.A. Brown, J.R. Southon and D.E. Nelson – Appendix I : NOGAP AMS Dates / J. Cinq-Mars – Appendix II : NOGAP bibliography / R.J. Dale and J-L. Pilon.
Appendices.
References.
OORD

... Most of the articles in this volume represent final, expanded versions of a series of papers presented in a NOGAP symposium at the 1988 meetings of the Canadian Archaeological Association held in Whistler, British Columbia, following the conclusion of the first phase of the project. They have been brought together in this publication in order to illustrate the range of our field and laboratory activities and to present a few of the approaches which have already served to enhance our knowledge of the heritage resources of northern Canada, and our ability to manage and protect them more efficiently. The first paper ... provides us with a review of the PWNHC Archaeological Field Training Project ... . The next two papers deal with aspects of our re-analysis activities and serve to demonstrate the importance of trying to make the most of perviously-gathered and frequently under-exploited data sets. ... The following seven papers are concerned with various aspects or facets of NOGAP archaeological field investigations results, as well as methodological developments. (Au)

U-308838

Archaeological investigations in the Mackenzie Delta and Eskimo Lakes, 1985 / Prince of Wales Northern Heritage Centre. Arnold, C.D. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1986.
2 v. (99 p.).
(Manuscript report – Archaeological Survey of Canada, no. 2495)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Archaeological investigations at Saunatuk and the Narrows on the Eskimo Lakes and at Gopuk on the west bank of the east channel of the Mackenzie River across from Kittigazuit. All sites are prehistoric Mackenzie Inuit. Saunatuk, at the end of a peninsula on the Eskimo Lakes, contained a relatively large amount of human skeletal material as well as faunal material and 175 artifacts. The Narrows site was mapped and briefly tested. The faunal remains consisted largely of caribou and fish. Some human remains were noted on the surface of the Narrows site. The Gopuk site produced a quantity of surface collected artifacts and faunal remains. (NOGAP)

U-308846

Preliminary report on the 1986 activities of the Mackenzie Delta Heritage Project : Excavations at Gupuk (NiTs-1) / Prince of Wales Northern Heritage Centre. Arnold, C.D. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1986.
34 p.
(Manuscript report – Archaeological Survey of Canada, no. 2821)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Investigations were carried out at the Mackenzie Inuit winter village of Gupuk (NiTs-1) located on the east side of Richards Island on the shore of the East Channel. Over 2,000 artifacts were recovered from excavations and from eroding surfaces of the site. Although there is a wide variety of tool types, only one European artifact, a blue bead, was found. All faunal material, with the exception of beluga bone, was brought out of the field for identification. Foot and helicopter surveys were also conducted along the coast of Richards Island and along the Tuktoyaktuk Peninsula and the Eskimo Lakes / Sitigi Lakes chain. (NOGAP)

U-308854

Archaeological reconnaissance in the Mackenzie Delta-Eskimo Lakes region, summer 1984 / Prince of Wales Northern Heritage Centre. Arnold, C.D. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1985.
2 v. (32 p.) : ill.
(Manuscript report – Archaeological Survey of Canada, no. 2424)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report on helicopter supported archaeological reconnaissance in the lower Mackenzie Delta – Eskimo Lakes region. The survey routes chosen permitted the examination of a proposed natural gas pipeline, and the re-examination of known sites in the area. A map showing the four flights is included, as is a catalogue of artifacts collected at two sites (NhTs-4 and NiTs-1). Also included are photographs of artifacts and sites. (NOGAP)

U-308862

NOGAP archaeology project summary / Cinq-Mars, J. Le Blanc, R.J. Pilon, J.-L. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1987.
11 p.
(Manuscript report – Archaeological Survey of Canada, no. 2855)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Description and Notes on In-House Field Activities, Draft: Prepared as an addendum to the NOGAP poster presented at the 20th annual meeting of the Canadian Archaeological Association, Calgary, April 22-26, 1987.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Summary of the results of in-house field activities of two seasons of research by the NOGAP Archaeology Project. The area covered by this research extends from the Tulugaq River on the west to Cape Bathurst in the east, and south to the Point Separation vicinity. (NOGAP)

U-308870

Lower Mackenzie Valley site re-evaluation / Dale, R.J. Archaeological Survey of Canada.
[S.l] : Archaeological Survey of Canada, 1988.
93 p.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the

NOGAP area)
(Manuscript report – Archaeological Survey of Canada, no. 3019)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

This project was undertaken to update pre-NOGAP sites' accession records and information pertaining to sites found along the lower Mackenzie River drainage from Norman Wells downstream into the Delta. Also included is information on Gotthardt's 1986 sites. 131 sites were located in the study area, but only 57 with collections were studied. A total of 4601 specimens were examined. (NOGAP)

U-308889
Analysis of beluga bones from Gupuk, NiTs-1 / Friesen, T.M. Archaeological Survey of Canada.
[S.l] : Archaeological Survey of Canada, 1987.
30 p.
(Manuscript report – Archaeological Survey of Canada, no. 2853)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of a study of a substantial sample of beluga whale (Delphinapterus leucas) bones collected during the 1985 excavations at the Gupuk site (NiTs-1), located on Richards Island on the East Channel of the Mackenzie River. (NOGAP)

U-308897
Archaeological and ethnohistorical survey in the Peel and Husky channels, west Mackenzie Delta, N.W.T. / Gotthardt, R.M. Archaeological Survey of Canada.
[S.l] : Archaeological Survey of Canada, 1986.
87 p.
(Manuscript report – Archaeological Survey of Canada, no. 2653)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Survey of the Peel and Husky channels between Aklavik, and the confluences of these channels and the Peel River. 41 localities were tested along the Peel and Husky channels. Only one site, Shingnek, yielded possible evidence of prehistoric or early historic occupation. A number of localities were identified which are of historic significance as well as important resource areas, identified by informants. All the resource localities are on the Husky channel. (NOGAP)

U-308900
Northern Yukon arctic drainage site study (excluding Engigstciak and the Herschel Island sites) : The pre-NOGAP data base / Boreal Institute for Northern Studies. Greer, S. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1987.
3 v. (111;106;58 p.).
(Manuscript report – Archaeological Survey of Canada, no. 2911)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

This project is concerned with the archaeological data base from the arctic drainage region of northern Yukon Territory that pre-dates 1985 and the inauguration of the NOGAP archaeological field programme. The study is a review of the existing site records and collections, an updating of information files and associated collections documentation, and an analytical assessment of the research value and management concerns for northern Yukon sites and collections. The study is concerned with a total of 97 Borden designations. Every artifact from the site being studied was examined, and a minimal amount of analytic data on each one was recorded and is contained in the Analytical Catalogue (Vol.3). The data from the Analytical Catalogue and the Artifact Description Sheets along with the information from the available site records has been used to prepare a summary for each site (Vol.2). (NOGAP)

U-308919
A preliminary report on the NOGAP archaeological field training programme, Drum Lake : the 1985 season / Hanks, C.C. Pokotylo, D. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1986.
78 p.
(Manuscript report – Archaeological Survey of Canada, no. 2636)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Drum Lake was chosen as a training site on the basis of known Mountain Dene use patterns and because there were reliably reported historic sites in the area. Fifteen sites were recorded, seven of which contained stone tools and detritus. Three sites contain artifacts separated by discontinuous layers of volcanic ash. Seven sites were test-excavated and 2037 lithic artifacts were recovered. A summary of the physical geography of Drum Lake and a segment on site distribution and resource use is included. An occupation extending back 1,200 years is indicated and there is evidence of a shift in settlement patterns between the prehistoric and historic period. (NOGAP)

U-308927
Archaeological research in the Mackenzie Delta region / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1988.
89 p.
(Manuscript report – Archaeological Survey of Canada, no. 3059)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of the results of archaeological inventory and test excavation on the Tuktoyaktuk Peninsula and Cape Bathurst peninsula. Surveys in the former area covered Toker Point, Warren Point, Hutchinson Bay and terraces along a palaeo-channel south of McKinley Bay. NkTj-1 was tested in the latter area and produced a Northwest Microblade assemblage. On the Cape Bathurst peninsula, work was undertaken along the Old Horton River channel, and 51 sites were located and tested. One, ObTv-1, was located near the Lagoon site on Banks Island and produced a late Palaeoeskimo assemblage. The second, ObRw-11, produced an assemblage with serrated endblades which suggests a

possible early palaeoeskimo Independence 1- like occupation. The location of many of the sites on the Old Horton River channel is situated in a region where a glassy fused rock was being produced by spontaneous combustion of organic rich mudstones. The material was being exploited for tool production by Palaeoeskimo and possibly other cultures in the area. (NOGAP)

U-308935

Engigstciak revisited, final report to contract no. 1630-6M-103 / Ludowicz, D.G. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1987.

8 v.

(Manuscript report – Archaeological Survey of Canada, no. 2915)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

This report concerns the extant collection of the Engigstciak site (NiVk-1) which is housed at the CMC. Specific goals include assessing the integrity of available documentation, and determining future research and management needs for the collection. The report also reconstructs the cultural units or phases defined by MacNeish. Material collected by MacNeish in the 1950s constitutes the majority of the specimens. The collection includes a large proportion of lithics as well as bone and antler tools, pottery and a faunal sample. About 500 additional artifacts were collected by D. Clark in 1976. (NOGAP)

U-308943

Report on the 1990 NOGAP field season : Archaeological investigations at Whitefish Station (NfVe-1), Yukon arctic coast / Morrison, D.A. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1990.

17 p.

(Manuscript report – Archaeological Survey of Canada, no. 3333)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

This site, located on the edge of the Delta at its most northwesterly extreme, was reported by MacNeish in 1954 who noted one or more house depressions, with long entrance passages. Artifacts recovered during his test-excavations included a Thule type 2 harpoon head and Barrow Curvilinear pottery which suggested that the site was of Thule affiliation dating to between AD 1,000 to 1,400. Quantities of seal bone suggested that the site, which is now 3 km from the open sea, was closer to the sea when occupied. Excavations in 1990 did not support this interpretation. Two features were excavated: one was a recent 20th century cabin which was destroyed by fire, the other, while probably prehistoric, was not identified as to function. It may have been a natural feature used as a tent platform. The author concludes that this is the site mentioned by MacNeish but he cannot corroborate a Thule affiliation or a dependence on seals. The author speculates that the collection ascribed by MacNeish to this location actually derived from another unknown locality. (NOGAP)

U-308951

Report on Iglulualuit site excavations, 1987 / Morrison, D.A. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1987.

12 p.

(Manuscript report – Archaeological Survey of Canada, no. 2935)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

The Iglulualuit site (NlRu-1) is located a few km north of the mouth of the (new) Horton River, on the western coast of Franklin Bay. It is one of the largest prehistoric Inuit villages known from the Canadian Arctic. It comprises the remains of at least 30 sod and driftwood houses distributed over a distance of 800 m. Excavation concentrated on two of the more southerly houses. Just under 400 artifacts were recovered, including pottery, harpoon heads, ground and chipped stone end and side blades, scrapers, fish hook shanks, fish spear prongs, and broken whalebone mattocks. An estimated 6,000 faunal elements were also collected. The artifacts resemble those from other Western Inuit sites including Kittigazuit. The two houses are both late prehistoric and date between A.D. 1500 and 1800. Iglulualuit can probably be attributed to the Mackenzie Inuit. (NOGAP)

U-308960

Compte-rendu des fouilles archeologiques effectuees sur les sites NbTj-3 et NbTj-1 au lac Hyndman situe dans la partie sud-ouest de la plaine d'Anderson, district de Mackenzie, Territoire du nord-ouest [Report of the archaeological excavations carried out on the sites NbTj-3 and NbTj-1 at Hyndman Lake, situated in the south-west part of Anderson Plain, District of Mackenzie, Northwest Territories] / Nolin, L. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1990.

1 v.

(Manuscript report – Archaeological Survey of Canada, no. 3371)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Addendum to Pilon 1990.

Text in French.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Les fouilles archeologiques effectuees sur le site NbTj-3 demontrent qu'il fut reoccupe a de nombreuses reprises. Certains vestiges suggerent sa frequentation possible jusqu'a la periode historique. Par ailleurs, il aurait ete utilise comme lieu de collecte et de taille de materiaux lithiques ainsi que de site d'habitation. Sa position geographique exceptionelle, et la decouverte de temoins culturels sur des surplombs situes a plus de 30 metres d'altitude qui dominent les plans d'eau environnants, nous suggerent qu'il aurait pu etre utilise comme promontoire pour surveiller les deplacements des caribous. La presence de materiaux lithiques "exotiques" sur ce lieu d'habitation nous portent acroire que des groupes qui l'on occupe etaient en contacts avec des populations et/ou des regions eloignees du lac Hyndman. La breve intervention archeologique sur le site NbTj-1 a permis de demontrer qu'il fut aussi reoccupe et utilise comme site d'habitation (presence d'outils et d'une grande quantite de restes fauniques), vraisemblablement jusqu'a la periode prehistorique recente. (Au)

U-308978

Report of the 1990 NOGAP archaeological field activities in the southwest Anderson Plain and in the Mackenzie Valley, District of Mackenzie, Northwest Territories / Pilon, J.-L. Archaeological Survey of Canada.

[S..] : Archaeological Survey of Canada, 1990.

1 v.
(Manuscript report – Archaeological Survey of Canada, no. 3371)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Addendum by Luc Nolin.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Excavations undertaken at NbTj-9 and NbTj-17 on Hyndman Lake confirmed the occupation of these localities by groups related to the Arctic Small Tool tradition (ASTt). This brings the number of such sites on Hyndman Lake to three. Links with the coastal zone in the vicinity of Cape Bathurst peninsula are confirmed with the discovery of vesicular clinker debitage at NbTj-17. While the acquisition of local raw materials at NbTj-9 is inferred by the profusion of cores, nodular fragments and debitage, the collection from NbTj-17 is relatively modest and consists primarily of the remains of implements and debitage associated with resharpening and final shaping. The differences between the two sites may indicate seasonal differences. Thus, the three ASTt sites likely attest to a complex adaptation to the interior rather than a casual presence. Continued site survey in the SW Anderson Plain resulted in the discovery of an additional 7 sites, for a total of 111 sites since the NOGAP began work in this region. Semi-subterranean structures, most of which are provisionally interpreted as the remains of winter dwellings, now number 53 for the entire SW Anderson Plain. Before the NOGAP work only one such structure was known. (Au)

U-308986
Report of the 1988 NOGAP archaeological field activities in the southwest Anderson Plain and in the Mackenzie Valley, District of Mackenzie, Northwest Territories, volume 2 / Pilon, J.-L. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1989.
107 p.
(Manuscript report – Archaeological Survey of Canada, no. 3039)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of the completion of two Hyndman Lake sites found in 1987 as well as the continuation of the initial site survey of the Hyndman Lake area, and surveys of Big Woman Lake and Spillway Lake, located upstream from Hyndman Lake. Of the 19 sites examined, 17 contained evidence of past human use. One in particular had affinities with the ASTt. Excavation yielded an ASTt assemblage in good association with a hearth feature radiocarbon dated to 3390 =/- 255 B.P. Elsewhere on Hyndman Lake, the presence of a blade/microblade industry was confirmed. The Thunder River site located at the mouth of the Thunder River was revisited. (NOGAP)

U-308994
Report of the 1987 NOGAP archaeological field activities in the southwest Anderson Plain, District of Mackenzie, Northwest Territories, volume 3 / Pilon, J.-L. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1988.
85 p.
(Manuscript report – Archaeological Survey of Canada, no. 2912)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of the third season of NOGAP fieldwork undertaken in the southwest Anderson Plain. Lac a la Truite – excavation and testing of MlTk-2 and 3 and site survey in the western portion of the lake and elsewhere in the SW Anderson Plain. Excavation of the NlTj-2 semi-subterranean feature. Hyndman Lake – survey and identification of 10 sites. Thirty site localities were examined, 27 with evidence of use by man. The total number of semi-subterranean features known from the SW Anderson plain is now 34: 17 were discovered during the 1987 season. Two of these were excavated and two others were extensively tested. These features date to the last millenium. Evidence for older occupations was also discovered. Twenty-seven new sites were identified, five were revisited and collections were made at 18 sites. (NOGAP)

U-309001
Report of the 1986 NOGAP archaeological field activities in the southwest Anderson Plain and in the Mackenzie Valley, volume 5 / Pilon, J.-L. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1987.
34 p.
(Manuscript report – Archaeological Survey of Canada, no. 2700)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of the second season of fieldwork in the southwest Anderson Plain. A number of previously known sites (5) were revisited in order to collect additional information and 18 new sites were found. Semi-subterranean house pits were discovered on four of the revisited sites. Two other house pits were discovered on one of the newly discovered sites. Most of the new sites consist of thin scatters of faunal remains and lithic debitage and occasionally evidence of combustion activities. Most of the sites appear to relate to the late prehistoric period. (NOGAP)

U-309010
Assessment of landscape archaeological potential in Tenlon [sic], Sandy and Jiggle Lake NOGAP areas, volume 1 / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1987.
27 p.
(Manuscript report – Archaeological Survey of Canada, no. 2899)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Results of a study undertaken during the summer of 1987 to map and predict the archaeological potential of landscape within the Tenlen Lake area, and the Sandy Lake and Jiggle Lake areas located on the Anderson Plain near Travaillant Lake. The archaeological potential and numerous identifiers for the landscape units are given on maps 1 and 2. Tables 1 and 2 provide geomorphological factors affecting occupations, preservation and discovery, age, archaeological potential and category

for each landscape unit, ie. grouping the unit according to genetic origin, landscape position and common archaeological potential. (NOGAP)

U-309028

General comments on geological factors re archaeological potential, Beaufort sector of NOGAP project, volume 2 / Terrain Analysis and Mapping Services Limited.
Rampton, V.N. Archaeological Survey of Canada [Sponsor].
[S.l.] : Archaeological Survey of Canada, 1987.
6 p.
(Manuscript report – Archaeological Survey of Canada, no. 2899)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

General comments on geological factors regarding archaeological potential in the Beaufort sector. Yukon coastal plain, southern Richards Island, Palaeo-McKinley channel and adjacent environs, Cape Bathurst peninsula, Harrowby Bay, Old Horton channel, Horton River. Also general comments regarding archaeological potential ratings and further geological input. (NOGAP)

U-309036

A report of aerial photography and photographic interpretation in support of the Northern Oil and Gas Action Plan (NOGAP), archaeological assessment of the Lancaster Sound region, N.W.T., volume 1 / Roy, P.H. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1987.
118 p.
(Manuscript report – Archaeological Survey of Canada, no. 2931)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Aerial photography and photographic interpretation of known and unknown archaeological sites in the Devon Island/Lancaster Sound area. About 100 miles of shoreline was photographed using two film types flown at four scales, producing 312 line miles of photography. Includes three areas: Maxwell Bay and Croker Bay on the south coast of Devon Island and various parts of the north coast of Brodeur Peninsula, Baffin Island. Comparison studies of an area ground searched in 1985 (Maxwell Bay) and "blind testing" of the 1987 ASC-CMC field area (Croker Bay) were undertaken. Report includes site and photo cross-index and site locality work sheets indicating each site, number of features at each site and including geomorphic modifiers, description and comments where applicable. (NOGAP)

U-309044

Interim report for contract no. 1630-5m-052 : NOGAP assessment of the Lancaster Sound region : an archaeological survey of the southwest coast of Devon Island from Wellington Channel to Stratton Inlet, volume 1 / Sutherland, P.D. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1985.
88 p.
(Manuscript report – Archaeological Survey of Canada, no. 2507)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report on helicopter and walking surveys and test excavations of archaeological sites along the southwest coast of Devon Island from Wellington Channel to Stratton Inlet. Over 150 sites located, the majority from the air. Preliminary results: lengthy occupational history for the southwest coast of Devon Island. Late Dorset is the most substantial presence, although there are suggestions of an earlier Palaeoeskimo occupation and indications of an early and late Thule settlement. In addition, 19th and 20th century Inuit sites were recorded. The vast majority of sites were located on or near Lancaster Sound. No sites were located from the interior areas surveyed. Sites ranged from single component to multi-component and from individual isolated features to settlements containing 40 features. The site types found suggest multi-utilization. Artifacts include late Dorset lithics and art specimens, Thule harpoon heads, and historic artifacts in metal. (NOGAP)

U-309052

NOGAP assessment of the Lancaster Sound region : an archaeological survey of the southeast coast of Devon Island from Stratton Inlet to Cape Sherard / Sutherland, P.D. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1987.
44 p.
(Manuscript report – Archaeological Survey of Canada, no. 3018)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Report of a preliminary reconnaissance of the Lancaster Sound coast between Stratton Inlet and Cape Sherard was completed by helicopter. Approximately 100 previously unreported sites were recorded: the majority of these were aerially observed. Surface collections were made at six sites. At Lemieux Point, near base camp, test excavations were conducted at two previously reported Neoeskimo sites. Preliminary survey results indicate a lengthy occupation of the southwest coast of Devon Island. The most substantial presence in this area is Neoeskimo, but there is evidence of both Dorset and earlier Palaeoeskimo occupations. A separate pilot project using aerial photographic techniques for site identification was carried out by Paul Roy in conjunction with this survey work. (NOGAP)

U-309060

Northern Oil and Gas Action Plan assessment of the Lancaster Sound region : a baseline study of the archaeological resources / Sutherland, P.D. Archaeological Survey of Canada.
[S.l.] : Archaeological Survey of Canada, 1988.
173 p. + 1 atlas.
(Manuscript report – Archaeological Survey of Canada, no. 3379)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Document not seen by ASTIS. Citation from NOGAP.
OONMM

While the emphasis of the NOGAP-Archaeology project is upon the Mackenzie Valley/Beaufort Sea region, the project is also concerned

with the Northwest Passage, an area that would be part of the most likely tanker route to the east coast of North America or to Europe. In this study, the archaeological resources of Lancaster Sound, the easternmost portion of the Northwest Passage, are inventoried and assessed in terms of both research and management considerations. The focus is upon the south coast of Devon Island, where two seasons of archaeological survey and limited test excavations, carried out as part of the NOGAP-Archaeology project, have revealed a rich and lengthy occupational history. Detailed baseline information is provided for over 250 archaeological sites on the south coast of Devon Island. In addition, archaeological data for pertinent areas of Cornwallis, Somerset, Baffin and Bylot islands is reviewed. (Au)

U-309079

Pre-NOGAP Neoeskimo collections from the greater Mackenzie River Delta / Swayze, K. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1991.

1 v.

(Manuscript report – Archaeological Survey of Canada, no. 3372)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.

OONMM

The purpose of this study was to review the pre-NOGAP data base for Neoeskimo sites in the greater Mackenzie Delta region in order to update NOGAP files. Prior to NOGAP research the ASC had reports of 79 Neoeskimo sites in this area two general areas where Neoeskimo material had been collected. Of these 81 localities 61 have an artifact collection stored at CMC and 45 of these were analysed and described in the course of this project. Most collections are small, consisting of only a few artifacts, however nine are relatively large and consequently have more research potential. These collections were described and analysed in more detail. In addition to collection assessment, catalogue sheets were updated, missing artifacts noted and information concerning site condition and artifact provenience was collated. Many of the collections are notable because of rare wooden artifacts and because many of the sites from which they came are now destroyed by coastal erosion. (NOGAP)

U-309087

Engigstciak revisited / Cinq-Mars, J. MacNeish, R.S. Nelson, E. Archaeological Survey of Canada.

[S.l. : s.n.], 1988.

1 v.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Manuscript report – Archaeological Survey of Canada, no. 1955)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Three accelerator mass spectrometry (AMS) 14C dates on butchered bison bones, together with other available lines of evidence from the lower stratigraphic units of the "Buffalo Pit", at Engigstciak, on the Firth River, northern Yukon, converge to support the notion that a form of bison procurement was being implemented by hunters along portions of the Yukon Coastal Plain between 9,800 and 9,400 B.P., i.e. in early Holocene times. These data allow us to stress the importance of the site in our understanding of cultural history in this region and to contemplate the possibility of investigating further poorly known aspects of cultural adaptive systems in a northwestern Arctic environment shortly after the end of the late glacial. (Au)

U-309095

The Trout Lake archaeological locality : a northern Yukon site cluster / Boreal Institute for Northern Studies. Greer, S. Archaeological Survey of Canada [Sponsor].

[S.l. : s.n.], 1988.

9 p.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Manuscript report – Archaeological Survey of Canada, no. 3020)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

A reanalysis of collections from the Trout Lake area of northern Yukon challenges the integrity of what has become known as the type site of the British Mountain culture. The main Trout Lake site (NfVi-10) is seen as a mixed, multi-component deposit and its so-called British Mountain component is interpreted as lithic workshop debris. The collections from both NfVi-10 and the Northeast site (NeVi-9), the other main so-called British Mountain site in the Trout Lake area, features artifacts assignable to a number of different prehistoric cultures; the most easily recognizable of these are local variants of the Denbigh, Choris and Norton western Palaeoeskimo cultures. (Au)

U-309109

Mackenzie Inuit prehistory as seen from the Washout Site (NjVi-2) Herschel Island, Yukon north coast, volume 5 / Hunston, J. Archaeological Survey of Canada.

[S.l. : s.n.], 1986.

10 p.

(Manuscript report – Archaeological Survey of Canada, no. 2587)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the NOGAP Session of the 19th annual meetings of the Canadian Archaeological Association, April 26 1986.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Paper includes a discussion of previous archaeological work on Herschel Island by Stefannson in 1909 at Osborne Point, MacNeish's Firth River survey, testing of historic house mounds at Pauline Cove by Millar (1972), Bockstoce's excavations of two historic house features at Pauline Cove, and finally, Yorga's Washout site excavations of 1977 and 1978. Followed by a discussion of the 1985 excavation results at Washout: artifact assemblage, faunal specimens, sediment deposits, house construction details. Continued discussion of cultural affiliation (Western Thule Nunagiak phase). (NOGAP)

U-309117

Archaeological reconnaissance and test excavations in the Mackenzie Delta-Beaufort Sea region of the NOGAP study area / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].

[S.l. : s.n.], 1988.

10 p.

(Manuscript report – Archaeological Survey of Canada, no. 3021)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

This paper deals with the results of archaeological investigations which have shed new light on the prehistory of the Mackenzie Delta Region of the Northwest Territories. In particular, test excavations were conducted at several sites, among them a microblade and burin site (NkTj-1) situated on a late Pleistocene palaeo-channel on the Tuktoyaktuk Peninsula, and two Arctic Small Tool tradition (ASTt) sites located in a dense cluster of 34 sites on the Old Horton Channel on the Cape Bathurst Peninsula. The assemblage from NkTj-1 is thought to represent a Northwest Microblade tradition component, although there may be evidence of potentially earlier material. Of the two ASTt sites, one (ObRv-1) is clearly related to a distinctive, late ASTt variant found at the Lagoon site (OjRl-3) on Banks Island. The other ASTt site (ObRw-11) has materials which suggest an early Palaeoeskimo, Independence 1-like occupation. Finally, the location of many of the sites on the Old Horton River channel is situated in a region where a glassy and vesicular fused rock is being produced by spontaneous combustion of organic-rich mudstones. This material was being exploited for tool production by Palaeoeskimo, and possibly other cultures in the region. (Au)

U-309125
The later prehistory of Amundsen Gulf / Morrison, D.A. Archaeological Survey of Canada.
[S.l. : s.n.], 1988.
15 p.
(Manuscript report – Archaeological Survey of Canada, no. 1948)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Archaeological excavation and ethnohistorical tradition together indicate the existence of a previously unrecognized Mackenzie Inuit group, living in the Franklin Bay area east of Cape Bathurst into the early historic period. They appear to have been decimated by disease and starvation in the early 19th century, with survivors fleeing west to Baillie Island. Further east yet, the Amundsen Gulf coast as far as Dolphin and Union Strait was apparently unoccupied during the late prehistoric period, for reasons which remain unknown. Previously, however, it was occupied by a Thule culture population which was very similar to that of the western Coronation Gulf area. This "Clachan phase" of Thule culture was probably at least in part ancestral to both the Mackenzie and Copper Inuit. (Au)

U-309133
Caribou exploitation at NgVh-1 (northern Yukon) / University of Alberta. Dept. of Anthropology. Nagy, M. Archaeological Survey of Canada [Sponsor].
[S.l. : s.n.], 1988.
15 p.
(Manuscript report – Archaeological Survey of Canada, no. 1953)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

From analyses of archaeological remains at site NgVh-1, we examined the activities linked to caribou hunting by the Mackenzie Delta Inuit, who occupied the northern Yukon site at the end of the prehistoric period. NgVh-1 is a habitation site located west of the Trail River, about 25 km south of the Beaufort Sea. The presence of foetal and neonate caribou and of medullary bone in some ptarmigan remains indicates that the site was occupied from late May until late June. Activities related to bone processing, tool manufacture, and skin working were shown to have been carried out at the site. Analysis of the faunal material has demonstrated that 21 species were present, of which caribou and ptarmigan were the most important. The site also has abundant debris associated with objects made from antler and, to a lesser degree, with those made of bone. (Au)

U-309141
New insights into the prehistory of the lower Mackenzie Valley, Anderson Plain region, Northwest Territories / Pilon, J.-L. Archaeological Survey of Canada.
[S.l. : s.n.], 1988.
11 p.
(Manuscript report – Archaeological Survey of Canada, no. 3022)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Paper on the prehistory of the lower Mackenzie Valley, southwest Anderson Plain region; ie. the region of large lakes which form the head waters of major streams flowing north (Kugaluk River), south (Travaillant), east (Iroquois-Cornwath), and west (Rengleng). The findings of NOGAP research (1985-1987 field seasons) in this area are described. (NOGAP)

U-309150
NOGAP archaeology in the southwest Anderson Plain and in the lower Mackenzie Valley, Northwest Territories / Pilon, J.-L. Archaeological Survey of Canada.
[S.l. : s.n.], 1987.
10 p.
(Manuscript report – Archaeological Survey of Canada, no. 2856)
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
Paper presented at the NOGAP Session of the 20th annual meetings of the Canadian Archaeological Association, Calgary, Alta., April 22-26 1987.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

During the first four years of the NOGAP Archaeology Project, 104 new archaeological sites were found in the southwest Anderson Plain.

These sites are generally characterized by thin lithic scatters comprised mainly of undiagnostic debitage. In spite of the frustrating nature of the region's archaeology, elements of a local culture-history are emerging. Many of the sites attest to the late prehistoric Gwich'in occupation of the region. Earlier cultural remains have been found which relate to the use of the area by the Arctic Small Tool tradition, and a second, non-ASTt, microblade manufacturing group. Although external relationships can be drawn, at present, it appears more fruitful to identify and define local culture-historical parameters. (Au)

U-309168

A Palaeo-Eskimo site at Hyndman Lake, Anderson Plain, N.W.T. : implications for our understanding of ASTt land use patterns in the western Canadian Arctic / Pilon, J.-L. Archaeological Survey of Canada.

[S.l. : s.n.], 1990.

1 v.

(Manuscript report – Archaeological Survey of Canada, no. 3368)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the 23rd annual meetings of the Canadian Archaeological Association, Whitehorse, Y.T., May 9-13 1990.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

An early Palaeo-Eskimo component, dating to 3390 +/- 255 was discovered while investigating a late prehistoric Athapaskan semi-subterranean house feature at Hyndman Lake, 110 km east of Inuvik N.W.T. The ASTt assemblage consists of implements with a marked Alaskan character. The presence of a small quantity of vesicular clinker, a raw material found in profusion on Palaeo-Eskimo sites of the Cape Bathurst peninsula, suggests that the ASTt occupants of Hyndman Lake also utilized the resources of the coastal region. Taking into account coastal subsidence and fluctuations in the position of the tree-line, the site was likely in a forested region at the time of the ASTt occupation. It seems likely that the Hyndman Lake site represents an inland component of the local ASTt annual cycle, rather than a hitherto undocumented band-herd association. (Au)

U-309176

Geomorphology as an aid to mapping archaeological resources in NOGAP areas / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].

[S.l. : s.n.], 1988.

11 p.

(Manuscript report – Archaeological Survey of Canada, no. 1947)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14 1988.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

By incorporating air photo and surficial geology map interpretations, terrain units are defined. Landscape units combine terrain units and other physical parameters, such as drainage, presence of permafrost, etc., which are thought to affect archaeological potential. Finally, landscape categories based on geomorphology in conjunction with position or geographic location allow for an effective means of classifying the archaeological potential of large areas of landscape. (Au)

U-309184

Archaeological faunal remains from the southwest Anderson Plain, N.W.T. / National Museum of Natural Sciences (Canada). Zooarchaeological Identification Centre. Still, L.A. Archaeological Survey of Canada [Sponsor].

[S.l. : s.n.], 1988.

11 p.

(Manuscript report – Archaeological Survey of Canada, no. 1952)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14 1988.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

The analysis of 12 faunal samples collected in the Southwest Anderson Plain demonstrates a clear dependence on caribou as a primary dietary mainstay in late prehistoric times. The secondary focus shifted seasonally between snowshoe hare, fish and waterfowl. This analysis has also identified a number of bone disposal techniques which included burning in the domestic fire, gathering and burial, and possibly disposing of the bones of certain species in a nearby lake or stream. (Au)

U-309192

Prehistoric clinker use on the Cape Bathurst Peninsula, Northwest Territories, Canada : The dynamics of formation and procurement / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(American antiquity : a quarterly review of American archaeology, v. 56, no. 2, Apr. 1991, p. 268-277, ill., maps)

References.

Document not seen by ASTIS. Citation from NOGAP.

OONMM

Fieldwork conducted on the Cape Bathurst Peninsula, Northwest Territories, Canada, has resulted in the discovery of 75 sites representing occupations spanning more than 3,000 years. Nearly all of the sites are characterized by the predominant use of a distinctive rock called a "clinker". Resembling a basalt-to-obsidian-like material, it is formed by the spontaneous combustion of local organic-rich shales. The fusing occurs in burning areas called bocannes that are common along the Horton River and the cliffs along the eastern shore of the peninsula. Despite the evidence for intensive use on Cape Bathurst and the more general Mackenzie Delta region, none of the four potential quarry sources yielded evidence of actual prehistoric use. This is attributed to the dynamic nature of the formation and erosion of the bocannes over the last several thousand years. (Au)

U-309206

The Kugaluk site and the Nuvorugmiut / Morrison, D.A. Archaeological Survey of Canada.

[S.l.] : Archaeological Survey of Canada, 1988.

1 v.

(Mercury series)

(Paper – Archaeological Survey of Canada, no. 137)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

ISBN 0-660-10778-3.
Document not seen by ASTIS. Citation from NOGAP.
OONMM

Kugaluk (NgTi-1) is a small historic Inuit site located near the outlet of the Eskimo Lakes. It consists of three semi-subterranean houses, middens and activity areas. One house was excavated with its adjacent midden, along with the activity areas. From its location Kugaluk can be attributed to the Nuvorugmiut, the largest branch of the Mackenzie Inuit. Historic accounts suggest the Nuvorugmiut engaged in summer-time whale hunting until about 1880, after which summer-time caribou hunting became more important. Analysis of over 45,000 animal bones and about 1,000 artifacts indicates that Kugaluk was occupied between 1850 and 1875, and intensive caribou hunting was carried out. It is suggested that pronounced status differences may have accompanied different subsistence choices. (NOGAP)

U-309214

L'exploitation du caribou au site de la Riviere Trail (NgVh-1) dans le nord du Yukon [Caribou exploitation at the Trail River site, northern Yukon] / University of Alberta. Dept. of Anthropology. Nagy, M. Archaeological Survey of Canada [Sponsor].

(Musk-ox, no. 37, 1989, p. 152-158)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Text in French.

Document not seen by ASTIS. Citation from NOGAP.
OONMM

A travers l'etude des restes archeologiques du site NgVh-1, nous examinerons les activites liees a la chasse au caribou pratiquee par les Inuit du delta du Mackenzie qui occupaient le nord du Yukon a la fin de la periode prehistorique. NgVh-1 est un site d'habitation situe a l'ouest de la riviere Trail, a environ 25 km au sud de la mer Beaufort. Les restes de foetus et de nouveaux-nes de caribou ainsi que ceux de parties medullaires d'os de lagopedes indiquent que le site fut occupe de la fin mai jusqu'a la fin juin. On a demontre que des activites liees au traitement des os, a la manufacture d'outils et au travail des peaux, furent effectuees par les habitants du site. Lors de l'analyse des vestiges fauniques, on a identifie 21 especes animales, parmi lesquelles le caribou et les lagopedes sont le plus frequentes. Le site contient aussi une abondante concentration de debris associes a la production d'objets en bois de caribous et, dans une moindre mesure, ceux associes a la production d'objets en os. (Au)

U-309222

Riddle at Thunder River : An archaeological detective story / Pilon, J.-L. Archaeological Survey of Canada.

(Up here, life in Canada's north, v. 5, no. 6, Nov./Dec. 1989, p. 40-42)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

Document not seen by ASTIS. Citation from NOGAP.
OONMM

The analysis of archaeological specimens gathered in 1988 at the mouth of the Thunder River (MiTi-1), lower Mackenzie Valley, indicates that the locality's primary function was as a quarry/workshop. Historical and toponymic data show that this was likely the quarry identified by Alexander Mackenzie on 24 July 1789. Collections from the southwest Anderson Plain contain high proportions of Thunder River siliceous argillite, some obtained from beach gravels or till deposits, while some was obtained from primary geological deposits. In collections from peripheral areas, Thunder River siliceous argillite is occasionally found and often consists of the end-products of lithic reduction. It is especially interesting to confirm the presence of Thunder River siliceous argillite in Mackenzie Delta Inuit sites. A critical evaluation of all available data shows that Alexander Mackenzie's journal was relatively accurate with respect to this lithic source. (Au)

U-309230

Using aerial photography for site survey in arctic Canada : The Lancaster Sound NOGAP study / Sutherland, P.D. Roy, P. Archaeological Survey of Canada.

(Canadian journal of archaeology, v. 15)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

In press.

Document not seen by ASTIS. Citation from NOGAP.
OONMM

Aerial photography is widely recognized as one of the most efficient means of conducting a survey, particularly in inaccessible areas. Despite this, its application in archaeological studies within Canada has been quite limited. Since the late 1940s aerial photography has been used for mapping purposes throughout the Canadian Arctic with excellent results. In 1987, a pilot study using low level aerial photography for archaeological survey was undertaken in the Lancaster Sound region of High Arctic Canada, as part of the NOGAP Arcaheology Project. This paper examines the procedure used and the results obtained in the pilot study, and discusses the efficacy of this approach relative to conventional survey methods. It concludes that aerial photography is a cost-effective technique for archaeological reconnaissance of large and relatively inaccessible areas in the Canadian High Arctic. (Au)

U-309249

The NOGAP archaeology project : a brief introduction / Cinq-Mars, J. Pilon, J.-L. Archaeological Survey of Canada.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 1-5, 1 map)

References.

OORD

This paper briefly summarizes the reason for the initiation of the Northern Oil and Gas Action Program (NOGAP), its history, and achievements to date. The paper also provides a brief introduction to the collection of papers bound in this, the first occasional paper of the Canadian Archaeological Association. (ASTIS)

U-309257

Archaeological field training in the NOGAP area / Arnold, C.D. Prince of Wales Northern Heritage Centre. Hanks, C.C. Canadian Parks Service. National Historic Parks and Sites. Archaeoiogical Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 7-13, ill.)

References.

OORD

Northern Native people have a long-standing interest in their archaeological heritage, but seldom have had opportunities to participate in archaeological studies. The Prince of Wales Northern Heritage Centre received NOGAP funding in 1985 and 1986 to help resolve that problem by preparing and providing archaeological field training programs in the hydrocarbon development area. We have found that the key to effective training for people who lack an academic background is to make archaeology relevant. This paper summarizes our approach to archaeological field training, and identifies other ways that native people can participate in archaeological studies. Benefits which archaeological projects can derive from participation by native peoples are also discussed. (Au)

U-309265

The Trout Lake archaeological locality and the British Mountain problem / Canadian Circumpolar Institute. Greer, S.C. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 15-31, ill., 1 map)

Appendix.

References.

OORD

A reanalysis of collections from the Trout Lake area of northern Yukon challenges the integrity of what has become known as the type site of the British Mountain culture. The main Trout Lake site (NfVi-10) is seen as a mixed, multi-component deposit and its so-called British Mountain component is interpreted as lithic workshop debris. The collections from both NfVi-10 and the Northeast site (NeVi-9), the other main so-called British Mountain site in the Trout Lake area, features artifacts assignable to a number of different prehistoric cultures; the most easily recognizable of these are local variants of the Denbigh, Choris and Norton western Palaeoeskimo cultures. (Au)

U-309273

Engigstciak revisited : A note on early Holocene AMS dates from the buffalo pit / Archaeological Survey of Canada. Cinq-Mars, J. Canadian Museum of Nature. Harington, C.R. Simon Fraser University. Dept. of Archaeology. Nelson, D.E. Andover Foundation for Archaeological Research. MacNeish, R.S. Archaeological Survey of Canada [Sponsor].

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 33-44, ill., maps)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

References.

OORD

Three (accelerator mass spectrometry – AMS) 14C dates on butchered bison bones, together with other available lines of evidence from the lower stratigraphic units of the "Buffalo Pit", at Engigstciak, on the Firth River, northern Yukon, converge to support the notion that a form of bison procurement was being implemented by hunters along portions of the Yukon Coastal Plain between 9,800 and 9,400 B.P., i.e. in early Holocene times. These data allow us to stress the importance of the site in our understanding of cultural history in this region and to contemplate the possibility of investigating further poorly known aspects of cultural adaptive systems in a northwestern Arctic environment shortly after the end of the late glacial. (Au)

U-309281

Bone and antler tools from a late prehistoric Mackenzie Inuit site / University of Alberta. Dept. of Anthropology. Nagy, M. Archaeological Survey of Canada [Sponsor].

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 45-54, ill., maps)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

References.

OORD

This paper presents the results of a technological analysis of bone and antler remains from the Trail River site, in the northern Yukon. The site was notable for the heavy concentration of by-products associated with the manufacture of antler artifacts. There was also some evidence for the production of bone tools. The analysis was undertaken to determine the function of the feature where the bone and antler assemblage was found. Recognition of two types of gear was substantiated by the analysis of manufacturing techniques performed on the associated by-products. Personal gear (e.g. arrowheads, knife handles), made from antler, was manufactured with considerable effort and skill. These tools would have been prepared in anticipation of future caribou hunting. Situational gear (e.g. awls, scrapers), made from bone obtained on site, was manufactured expediently and intended for immediate use. (Au)

U-309290

Geomorphology as an aid to mapping archaeological resources in NOGAP areas / Terrain Analysis and Mapping Services Limited. Rampton, V.N. Archaeological Survey of Canada [Sponsor].

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 55-63, maps)

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

References.

OORD

By incorporating air photo and surficial geology map interpretations, terrain units are defined. Landscape units combine terrain units and other physical parameters, such as drainage, presence of permafrost, etc., which are thought to affect archaeological potential. Finally, landscape categories based on geomorphology in conjunction with position or geographic location allow for an effective means of classifying the archaeological potential of large areas of landscape. (Au)

U-309303

New data relating to the prehistory of the Mackenzie Delta region of the NOGAP study area / University of Alberta. Dept. of Anthropology. Le Blanc, R.J. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 65-76, ill., maps)
References.
OORD

This paper deals with the results of archaeological investigations which have shed new light on the prehistory of the Mackenzie Delta region of the Northwest Territories. In particular, test excavations were conducted at several sites, among them a microblade and burin site (NkTj-1) situated on a late Pleistocene palaeo-channel on the Tuktoyaktuk Peninsula, and two Arctic Small Tool tradition (ASTt) sites located in a dense cluster of 34 sites on the Old Horton Channel on the Cape Bathurst Peninsula. The assemblage from NkTj-1 is thought to represent a Northwest Microblade tradition component, although there may be evidence of potentially earlier material. Of the two ASTt sites, one (ObRv-1) is clearly related to a distinctive, late ASTt variant found at the Lagoon site (OjRl-3) on Banks Island. The other ASTt site (ObRw-11) has materials which suggest an early Palaeoeskimo, Independence 1-like occupation. Finally, the location of many of the sites on the Old Horton River channel is situated in a region where a glassy and vesicular fused rock is being produced by spontaneous combustion of organic-rich mudstones. This material was being exploited for tool production by Palaeoeskimo, and possibly other cultures in the region. (Au)

U-309311
The later prehistory of Amundsen Gulf / Morrison, D.A.
Archaeological Survey of Canada.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 77-87, ill., maps)
References.
Paper presented at the NOGAP Session of the 21st annual meetings of the Canadian Archaeological Association, Whistler, B.C., May 11-14, 1988.
OORD

Archaeological excavation and ethnohistorical tradition together indicate the existence of a previously unrecognized Mackenzie Inuit group, living in the Franklin Bay area east of Cape Bathurst into the early historic period. They appear to have been decimated by disease and starvation in the early 19th century, with survivors fleeing west to Baillie Island. Further east yet, the Amundsen Gulf coast as far as Dolphin and Union Strait was apparently unoccupied during the late prehistoric period, for reasons which remain unknown. Previously, however, it was occupied by a Thule culture population which was very similar to that of the western Coronation Gulf area. This "Clachan phase" of Thule culture was probably at least in part ancestral to both the Mackenzie and Copper Inuit. (Au)

U-309320
Insights into the prehistory of the lower Mackenzie Valley, Anderson Plain region, Northwest Territories / Pilon, J.-L.
Archaeological Survey of Canada.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 89-111, ill., maps)
References.
OORD

During the first four years of the NOGAP Archaeology Project, 104 new archaeological sites were found in the southwest Anderson Plain. These sites are generally characterized by thin lithic scatters comprised mainly of undiagnostic debitage. In spite of the frustrating nature of the region's archaeology, elements of a local culture-history are emerging. Many of the sites attest to the late prehistoric Gwich'in occupation of the region. Earlier cultural remains have been found which relate to the use of the area by the Arctic Small Tool tradition, and a second, non-ASTt, microblade manufacturing group. Although external relationships can be drawn, at present, it appears more fruitful to identify and define local culture-historical parameters. (Au)

U-309338
The basket case : Deciphering subsistence patterns in the southwest Anderson Plain region, N.W.T., in the late prehistoric period / Natural Museum of Natural Sciences (Canada). Zooarchaeological Identification Centre. Still, L. Archaeological Survey of Canada [Sponsor].
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 113-129, ill., 1 map)
References.
OORD

The analysis of 12 faunal samples collected in the Southwest Anderson Plain demonstrates a clear dependence on caribou as a primary dietary mainstay in late prehistoric times. The secondary focus shifted seasonally between snowshoe hare, fish and waterfowl. This analysis has also identified a number of bone disposal techniques which included burning in the domestic fire, gathering and burial, and possibly disposing of the bones of certain species in a nearby lake or stream. (Au)

U-309346
Archaeological site distributions on the south coast of Devon Island, High Arctic Canada / Sutherland, P.D.
Archaeological Survey of Canada.
(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)
(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 131-142, ill., maps)
References.
OORD

Helicopter and foot surveys carried out in 1985 and 1987 by the NOGAP-Archaeology Project, covered most of the southern coast of Devon Island. The 269 sites recorded represent all known periods of prehistoric and historic occupation of the High Arctic. Analysis of the distribution of components suggests that coastal locations close to the mouths of bays and fjords were favored by most prehistoric occupants of the area. Palaeoeskimo occupations appear to have been more heavily concentrated in the western portions of the coast, and Dorset occupations were particularly associated with the inner coasts of the large bays of southwestern Devon Island. Neoeskimo occupations were more evenly distributed throughout the survey area. It is postulated that these distributions can be best explained in terms of access to different

sea ice environments and the sea mammals associated with these environments. (Au)

U-309354

Accelerator radiocarbon dates from the Northern Oil and Gas Action Plan (NOGAP) / Simon Fraser University. Dept. of Archaeology. Vogel, J.S. Brown, T.A. Southon, J.R. Nelson, D.E. Archaeological Survey of Canada [Sponsor].

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 143-147, ill.)

References.

OORD

The technique of accelerator mass spectrometry was used to provide radiocarbon ages for 31 bone, antler and wood samples. The samples were sufficiently large (0.25 – 2 g) and well-preserved that routine preparative procedures could be used. We encountered no unusual problems, and so we are confident that the results obtained are reliable. (Au)

U-309362

Appendix I : NOGAP AMS dates / Cinq-Mars, J. [Compiler]. Archaeological Survey of Canada.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 149-154)

References.

OORD

Appendix I offers a compilation of all the comments made by various researchers on our first series of 31 AMS 14C dates. (NOGAP)

U-309370

Appendix II : NOGAP bibliography / Dale, R.J. [Compiler]. Pilon, J.-L. [Compiler]. Archaeological Survey of Canada.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(NOGAP archaeological project : an integrated archaeological research and management approach / Edited by J. Cinq-Mars and J.L. Pilon. – Occasional paper – Canadian Archaeological Association, no. 1, 1991, p. 155-159)

OORD

Appendix II consists of a detailed listing of all available documents produced to date, directly or indirectly, by and/or for the NOGAP Archaeology Project. The list includes in-house reports, conference papers as well as titles of publications derived from NOGAP funded work. It provides the reader with a realistic measure of the activities carried out during the first part of the project. (NOGAP)

U-309648

Qikiqtaruk 1990 : archaeological investigations on Herschel Island, Yukon Territory / Friesen, T.M. Yukon Territory. Heritage Branch.

[Whitehorse, Y.T.] : Yukon Territory, Dept. of Tourism, Heritage Branch, 1991.

v, 110 leaves : ill., maps ; 28 cm.

(NOGAP project no. G.18 : North coast heritage research and protection)

Appendices.

References.

YWA, OORD, ACU

The goal of the 1990 field season of the Qikiqtaruk Archaeology Project was to investigate Inuvialuit lifeways on Herschel Island before the incursion of Euro-American whalers in the 1890s. To this end, the author excavated two large Inuvialuit winter houses at Pauline Cove, the largest prehistoric and historic archaeological site on Herschel Island. One house yielded artefacts representative of a late prehistoric occupation, with no evidence of contact with Euro-Americans. The artefacts and faunal remains from this house indicate a significant reliance on ringed seal, with additional use of caribou, fish, and migratory birds. The second house yielded quantities of trade goods, as well as traditional artefacts, which together suggest an occupation just prior to the arrival of American whalers in 1890. This second artefact assemblage indicates that proto-historic Inuvialuit of Herschel Island lived a traditional lifestyle, as indicated by the many hunting, fishing, and household implements which are made of locally-available materials such as wood, bone, ivory, and ground slate. Only a few Euro-American artefact types were imported by the occupants, primary among which are breech-loading rifle technology and ornamental artefacts such as glass beads and buttons. (Au)

U-309737

Iglulualumiut prehistory : the lost Inuit of Franklin Bay / Morrison, D. Archaeological Survey of Canada.

Hull, Quebec : Canadian Museum of Civilization, 1990.

vii, 201 p. : ill., maps ; 24 cm.

(NOGAP project no. F.01 : Northern hydrocarbon archaeology : A coordinated attempt at developing an integrated archaeological resource management system within the NOGAP area)

(Paper – Archaeological Survey of Canada, no. 142)

(Mercury series)

ISBN 0-660-10794-5.

References.

ACU

Archaeological excavation and ethnohistorical tradition together indicate the existence of a previously unrecognized Mackenzie Inuit group, living in the Franklin Bay area east of Cape Bathurst into the early historic period. They appear to have been decimated by disease and starvation in the early 19th century, with survivors fleeing west to Baillie Island. Further east yet, the Amundsen Gulf coast as far as Dolphin and Union Strait was apparently unoccupied during the late prehistoric period, for reasons which remain unknown. Previously, however, it was occupied by a Thule culture population which was very similar to that of the western Coronation Gulf area. This "Clachan phase" of Thule culture was probably at least in part ancestral to both the Mackenzie and Copper Inuit. (Au)

See also: S-309621, V-309656, X-309389.

V – HISTORY

V-309656
Dawson daily news, 1899-1920 : index and summary / Tosczak, J. Yukon Territory. Heritage Branch.
[Whitehorse, Y.T.] : Yukon Territory, Dept. of Tourism, Heritage Branch, 1991.
[169] p. ; 28 cm.
(NOGAP project no. G.18 : North coast heritage research and protection)
YWA, OORD, ACU

The report represents a partial index of the Dawson Daily News from its founding in 1899 to December 1920. The areas of focus are topics relating to northern Yukon, including Herschel Island, arctic whaling, missionaries, trapping/trading, arctic exploration, Yukon native peoples, and archaeological and palaeontological discoveries. In total, there are 414 newspaper listings, cross referenced by more than 100 key words. Summaries are provided for each listing. Key reference words: Herschel Island, north Yukon, arctic whaling, missionaries, Yukon native people, trading, trapping, arctic exploration, archaeology, palaeontology. (Au)

See also: T-309400, U-306495, U-308897, U-308919, U-309206, U-309222, U-309320, U-309648.

X – GENERAL

X-308501
Northern Affairs Program : environmental research projects, 1969-1987 / Shaw, B. Canada. Dept. of Indian Affairs and Northern Development [Sponsor].
[S.l.] : Canada. Dept. of Indian Affairs and Northern Development, 1987.
iv, 64 leaves ; 28 cm.
(NOGAP project no. A.07 : Offshore environmental ecosystems monitoring)
Appendices.
This report is to be updated annually.
OORD, NWYIN

This report contains a listing of all contracts funded by the Northern Environment Directorate and its predecessor, the Arctic Land Use Research Program, since 1970. Where the contractor prepared a report, the report number is given in the final column of the table and appendix contain the report numbers, titles and authors. This report will be updated annually. (Au)

X-309389
NOGAP bulletin 1990/1991 – 1991/1992 : review of NOGAP projects / Canada. Northern Oil and Gas Action Program.
Ottawa : DIAND, NOGAP Secretariat, 1991.
63 p. ; 28 cm.
Contents: I. The program and its administration. – II. NOGAP projects by participants: Indian and Northern Affairs Canada, Fisheries and Oceans, Environment Canada, Energy, Mines and Resources, Canadian Museum of Civilization, Government of Yukon Territory, Government of the Northwest Territories.
Introduction is translated into French.
ACU

This report is the fourth review of Northern Oil and Gas Action Program (NOGAP) projects, updating the third bulletin issued in May 1977. It provides a brief description of NOGAP-funded projects to be started or continued during the fiscal years 1990/91 and 1991/92. (Au)

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